

Financial Statements
South Carolina Retirement Systems
Year Ended June 30, 2018

Administered by the
South Carolina Public Employee Benefit Authority
Columbia, South Carolina

This page contains no other content.



SOUTH CAROLINA OFFICE OF THE STATE AUDITOR
1401 Main Street, Suite 1200 • Columbia, SC 29201

October 15, 2018

Members of the South Carolina Public Employee
Benefit Authority
State of South Carolina
Columbia, South Carolina

This report on the audit of the financial statements of the South Carolina Retirement Systems for the fiscal year ended June 30, 2018, was issued by CliftonLarsonAllen LLP, Certified Public Accountants, under contract with the South Carolina Office of the State Auditor.

If you have any questions regarding this report, please let us know.

Respectfully submitted,

George L. Kennedy, III, CPA
State Auditor

GLKIII/cmw

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INDEPENDENT AUDITORS' REPORT

The Honorable Henry D. McMaster, Governor
Mr. George L. Kennedy, CPA, State Auditor,
and Board of Directors
South Carolina Public Employee Benefit Authority
Columbia, South Carolina

Report on the Financial Statements

We have audited the accompanying financial statements of the South Carolina Retirement Systems (the Systems) as administered by the South Carolina Public Employee Benefit Authority, which comprise the statement of fiduciary net position as of June 30, 2018, and the related statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.



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We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Systems as of June 30, 2018, and the respective changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Report on Summarized Comparative Information

We have previously audited the Systems' 2017 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated October 13, 2017. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2017 is consistent, in all material respects, with the audited financial statements from which it has been derived.

Emphasis of Matter

The financial statements include alternative investments valued at \$9.5 billion (approximately 30% of total net position). As explained in Note 1, their fair values have been estimated by management in the absence of readily determinable fair values. Management's estimates are based on information provided by the fund managers or the general partners. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the schedules of changes in the employers' net pension liability, employers' net pension liability, employers' contributions and investment returns and related notes, as listed in the table of contents, be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

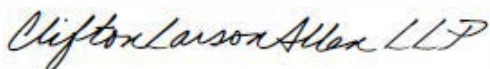
Our audit was conducted for the purpose of forming an opinion on the Systems' financial statements. The other supplementary information, as listed in the table of contents, is presented for purposes of additional analysis and is not a required part of the financial statements.

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The other supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information is fairly stated, in all material respects, in relation to the financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 15, 2018 on our consideration of the Systems' internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the South Carolina Retirement Systems' internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Systems' internal control over financial reporting and compliance.



CliftonLarsonAllen LLP

Baltimore, Maryland
October 15, 2018

Management's Discussion and Analysis

This section presents management's discussion and analysis of the financial position and performance for the year ended June 30, 2018, for the South Carolina Retirement Systems' pension trust funds (Systems), and is offered as an introduction and analytical overview. This narrative is intended as a supplement and should be read in conjunction with the financial statements and other information presented in the *Comprehensive Annual Financial Report*.

The Systems' financial statements provide information about the activities of the five defined benefit pension plans administered, which are listed below, in addition to comparative summary information about the activities of the Systems as a whole:

- The South Carolina Retirement System (SCRS) - A member contributory multiple-employer plan covering teachers, as well as state and municipal employees;
- The Police Officers Retirement System (PORS) - A member contributory multiple-employer plan covering state and local law enforcement personnel and firefighters;
- The Retirement System for Members of the General Assembly of the State of South Carolina (GARS) - A member contributory plan providing benefits to members of the South Carolina General Assembly, which is closed to persons first elected to the South Carolina General Assembly at or after the general election in November 2012;
- The Retirement System for Judges and Solicitors of the State of South Carolina (JSRS) - A member contributory plan covering Judges, Solicitors, Public Defenders and Administrative Law Judges; and
- The South Carolina National Guard Supplemental Retirement Plan (SCNG) - A non-contributory supplemental benefit plan for members of the South Carolina National Guard.

Overview of the Financial Statements

The Systems represents the collective retirement funds that are held in a group trust for the plans and are protected by the state's constitution. The South Carolina Public Employee Benefit Authority (PEBA) was created July 1, 2012 and operates a Retirement Division to administer the various retirement systems and retirement programs. PEBA has an 11-member Board of Directors, appointed by the Governor and General Assembly leadership, which serves as co-trustee and co-fiduciary of the Systems and the trust funds. By law, the State Fiscal Accountability Authority (SFAA), which consists of five elected officials, also reviews certain PEBA Board decisions regarding the actuary of the Systems. Effective July 1, 2017, the Retirement System Funding and Administration Act of 2017 assigned the PEBA Board of Directors as the Custodian of the Retirement Trust Funds and assigned PEBA and the Retirement Systems Investment Commission (RSIC) as co-trustees of the Retirement Trust Funds.

PEBA is considered a division of the primary government of the state of South Carolina and therefore, retirement trust fund financial information is also included in the comprehensive annual financial report of the state. Financial statements prepared on behalf of the Systems, include the following information, for the fiscal year ended June 30, 2018, with combined total comparative information for the fiscal year ended June 30, 2017:

- Statement of Fiduciary Net Position
- Statement of Changes in Fiduciary Net Position
- Notes to the Financial Statements
- Required Supplementary Information
- Other Supplementary Information

The Statement of Fiduciary Net Position presents the Systems' assets and liabilities and the resulting net position restricted for pensions. This statement reflects a year-end snapshot of the Systems' investments, at fair value, along with cash and short-term investments, receivables and other assets and liabilities.

The Statement of Changes in Fiduciary Net Position presents information showing how the Systems' net positions restricted for pensions changed during the year. This statement includes additions for members, employers and state appropriated contributions and investment earnings (losses) and deductions for retirement benefit payments, refunded contributions, death benefit payments and administrative expenses.

Notes to the Financial Statements are an integral part of the basic financial statements and provide additional information that is necessary in order to gain a comprehensive understanding of data reported in the basic financial statements.

Required Supplementary Information presents schedules pertaining to the employers' and nonemployer's net pension liability, changes in employers' and nonemployer's net pension liability, employers' and nonemployer's contributions, and the money-weighted rate of return on investments. These schedules are intended to provide additional information useful in evaluating the condition of the Systems.

Other Supplementary Information includes Schedules of Changes in Fiduciary Net Position by System, as well as Schedules of Administrative Expenses, Professional and Consultant Fees and Investment Fees and Expenses.

Financial Highlights

- Legislation addressing the funding of the state's public pension plans took effect July 1, 2017. This legislation, known as the Retirement Funding and Administration Act of 2017, represented the culmination of efforts on behalf of many people and organizations. Both the Board of Directors of PEBA and the South Carolina General Assembly made the sustainability of our state's pension plans a priority that was handled deliberately. This legislation increased the employer and employee contribution rates, established a ceiling on SCRS and PORS employee contribution rates, lowered the assumed rate of return, required a scheduled reduction of the funding periods, and addressed various governance issues including the assignment of the PEBA Board as custodian of the retirement trust funds and assignment of the Retirement System Investment Commission (RSIC) and PEBA as co-trustees. Additional information regarding this legislation, as well as current funding schedules, are available on our public website.
- Total fiduciary net position for all five defined benefit plans of the Systems combined, increased by almost \$1 billion, which was over three percent from the prior year net position. The net position of the plans is impacted by contributions paid into the plans, investment performance, and benefit payments out of the system. It is important to note that growth in fiduciary net position depends on both investment performance and contributions from employers and employees. The plans are in a net cash outflow position with benefit payments exceeding contributions; therefore, investment performance must first make up this gap before fiduciary net position can grow. The increase in net position from \$30.2 billion to \$31.2 billion was attributable to both increased contributions and positive investment performance.
- For the fiscal year ended June 30, 2018, the net of fee investment performance return on a time-weighted basis reported by the custodial bank, the Bank of New York Mellon (BNYM), was 7.82 percent. This net return reflects performance of the Systems, at the aggregate for the pooled investments of the consolidated pension trust funds, after the deduction for manager fees and/or expenses. This fiscal year's performance was lower than the prior year's return of 11.88 percent but greater than the

actuarial assumed rate of return and is therefore considered an actuarial gain. As referenced above, the Retirement Funding and Administration Act of 2017 lowered the assumed rate of return from 7.50 to 7.25 percent beginning July 1, 2017. Actuarial valuations are prepared for each of the plans annually for funding purposes, at which time gains and losses from investment performance are recognized using smoothing methods that help mitigate sharply fluctuating market returns over a long-term period. The smoothing methodology offsets both deferred investment gains and losses against each other and is intended to produce an actuarial asset value that should be fairly consistent with market value during periods of ordinary investment returns. Smoothing investment performance avoids overreaction to inherently volatile conditions that would otherwise overweight the effects of a single year of performance that may potentially be reversed in subsequent years. Actuarial smoothing is intended to result in more stable contribution rates and a more level funded status, and is also a valuable methodology for governmental entities because it permits participating employers to plan their budgets over more than one fiscal year.

- Liability calculations for financial reporting purposes for each of the five defined benefit plans were performed and certified by GRS Consulting in the GASB No. 67 Accounting Valuation Report as of June 30, 2018. The calculations presented in the accounting valuation are not applicable for other purposes, such as determining the plans' funding requirements. The total pension liability, net pension liability, and sensitivity information are based on an actuarial valuation performed as of July 1, 2017. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending June 30, 2018, using generally accepted actuarial principles. The Notes and Required Supplementary Information (RSI) sections of the Financial Statements include disclosures required by GASB No. 67.
- The dollar amount of employee and employer contributions collected increased compared to the prior year and the rise is primarily attributable to increased contribution rates. Pension reform legislation increased both employee and employer contribution rates, but also established a ceiling for employee rates. Effective July 1, 2017, employee rates increased to a capped rate of 9.00 percent for SCRS and 9.75 percent for PORS. Employer contribution rates for both SCRS and PORS increased by 2 percent of pay to 13.56 percent and 16.24 percent, respectively. These employer rates are inclusive of contributions for the death benefit plan which are only applicable to participating employers. Effective July 1, 2018, employee rates will remain the same but employer contribution rates are scheduled to increase by 1 percentage point for both SCRS and PORS to 14.56 percent and 17.24 percent, respectively. In accordance with the legislative funding schedule, employer contribution rates will continue to increase by a minimum of 1 percentage point each year through July 1, 2022, and further, if the scheduled contributions are not sufficient to meet the funding periods set for the applicable year. The board shall increase the employer contribution rates as necessary to meet the amortization period set in statute.
- In an effort to help offset a portion of the burden of the increased contribution requirement for employers, the General Assembly funded 1 percent of the SCRS and PORS contribution increases for fiscal year 2018. The State's budget appropriated these funds directly to PEBA for the South Carolina Retirement System Trust Fund and the Police Officers Retirement System Trust Fund. PEBA received the funds from the state and in turn issued credit invoices to each employer based on each employer's proportionate share of the appropriated funds. Participating employers then applied the credit invoices towards contributions otherwise due to the Systems for the fiscal year. The amount of nonemployer funds appropriated totaled \$105 million and \$13.1 million for SCRS and PORS respectively.
- Annuity benefits increased 16.3 percent from the prior fiscal year. The amount of benefits disbursed to payees increased from the prior year for several reasons. Eligible SCRS and PORS annuitant payees received an annual benefit adjustment equal to the lesser of 1 percent or \$500 on July 1, 2017, there

was a slight increase in the number of annuitants receiving benefits, and additionally, with the closure of the Teacher and Employee Retention Incentive (TERI) program, payments to members ending their participation in the program produced an increase of over \$375 million in annuity benefits paid in the form of TERI distributions.

- TERI was a deferred retirement option program available under SCRS that allowed members who were eligible to retire to accumulate annuity benefits on a deferred basis for up to 60 months while continuing employment. Legislation enacted in 2012 closed the TERI program to all participants effective June 30, 2018, so not all TERI participants were eligible to participate for the full 60 months. During the member's period of participation, the TERI participant was required to pay the same pre-tax member contribution rate on compensation earned, in the same manner as active members. TERI participants did not earn additional service credit or interest on their TERI account, but they were eligible to receive retirement benefit increases in the same manner as other annuitant payees. At the end of the member's TERI participation and upon termination from employment, the balance in the member's accumulated TERI account was distributed. The TERI program's closure not only caused a spike in the number of distributions paid during the year, but also resulted in an increase in the liability for deferred retirement benefits payable at June 30, 2018. The liability increase of over 295 percent in deferred retirement benefits occurred because for members terminating employment on June 30, 2018, their TERI balances became payable but could not be distributed until after fiscal year-end.
- The Systems' investment portfolio participates in a securities lending program, managed by BNYM (Securities Lending Program), whereby securities are loaned for the purpose of generating additional income. As the securities lending agent, BNYM is responsible for making loans of securities on a collateralized basis from the Systems' investment portfolio to various third party broker-dealers and financial institutions. Securities lending revenue net of borrower rebates was \$1.99 million, an increase from \$773 thousand in the prior year. As reported by BNYM, at June 30, 2018, the fair value of securities on loan was \$78.64 million, the fair value of the invested cash collateral was \$34.61 million, and the securities lending obligations were \$81.51 million. The reported difference in the value of the invested cash collateral and the securities lending obligations in the securities lending program, is reflected within "Other Liabilities" on the Retirement Systems' Statement of Fiduciary Net Position, consistent with information reported on accounting statements provided by BNYM as both the custodial bank and securities lending agent.
- The Retirement System Investment Commission (Commission as the governing body, RSIC as the agency), created by the General Assembly in 2005, has exclusive authority to invest and manage the retirement trust funds' assets. The Commission serves as co-trustee and co-fiduciary for the Systems and the trust funds. The Retirement Funding and Administration Act of 2017 assigned RSIC as co-trustee of the retirement trust funds along with the PEBA Board. The Commission operates pursuant to statutory provisions and under governance policies that allow for a diverse asset allocation and which afford the RSIC and its Chief Investment Officer (CIO) discretion and flexibility to quickly react to changes in market conditions. The investment portfolio is structured to focus on ensuring the long-term stability of the plans, seeking superior returns at acceptable levels of risk.
- The Commission is responsible for establishing and managing a target asset allocation that manages risk, ensures liquidity, and affords flexibility to quickly react to changes in market conditions. The fiscal year 2018 policy allocation, including target weights, ranges and benchmarks for each asset class, was adopted by the Commission on April 27, 2017 for the fiscal year beginning July 1, 2017. The asset allocation introduced a mid-year increase in cash allocation to accommodate an expected increase in cash needs related to payment of distributions for member TERI accounts. The asset allocation temporarily increased the cash target by 1 percentage point during the period commencing December 1,

2017 and ending June 30, 2018 while, at the same time, temporarily decreased the GAA allocation from 8 percent to 7 percent. The fiscal year 2018 asset allocation policy also featured a 2 percentage point reduction in Hedge Funds from 4 percent to 2 percent of plan.

- The 2017 legislation also gave the Commission the exclusive authority to select the custodial bank effective July 1, 2017, with PEBA as a third-party beneficiary of the contract with the custodial bank with full rights to information under them. The Commission contracted with BNYM to serve as custodial bank for the Retirement Systems' funds. Under a provision of the contract for custody services and in an effort to maintain transparency, BNYM directly invoices the trust funds on a quarterly basis for both custody and other ancillary services utilized. PEBA and the RSIC jointly verify that invoices accurately reflect services rendered and are appropriate for the period before amounts are paid. The trust funds' securities lending revenue account is the initial source from which such costs are paid to the custodial agent.
- All investment manager fees, whether directly invoiced or deducted from the fund Net Asset Value (NAV) on a net of fee basis, are classified and reported as investment expense in the Statement of Changes in Fiduciary Net Position. The RSIC provides the non-invoiced fee information to PEBA on an annual basis so that amounts can be reclassified and reported in the Systems' financial statements. Investment manager fees include management fees, performance fees and carried interest (both realized and accrued), and other expenses. There is no industry standard for reporting pension plan investment fees and expenses; therefore, in order to compare investment expenses as reported by the Systems with investment management costs reported by other public pension plans, an understanding of the actual fees and expenses included in any comparative report is necessary. Total investment manager fees for fiscal year 2018 were \$359.0 million, which includes both invoiced amounts and amounts deducted on a net of fee basis, but excludes bank fees and investment expenses. Comparatively, total investment manager fees were 18.5 percent higher than the prior fiscal year 2017 total of \$302.9 million. The increase is largely attributed to higher performance fees as a result of strong performance for the fiscal year in the asset classes that incur performance fees.
- PEBA is the governing body responsible for administration of both the state's retirement plans and employee insurance programs, and its administrative costs for retirement operations are funded from the retirement trust funds. Administrative expenses for fiscal year 2018 increased 9.7 percent from the prior year. This increase resulted largely from the initial work towards a project to assess the needs, develop requirements and begin efforts to acquire a new comprehensive benefit administration system. The project has been named "peba:connect" and is expected to be ongoing for the next 5 to 7 years. The client services vendor, an expert in public pension and insurance enterprise system implementation, began work in fall 2017 by reviewing the functional and technical requirements for the new system. Increases in administrative expenses were also realized due to higher information technology operating expenses and other costs associated with building and facilities maintenance.
- PEBA works closely with our consulting actuary and external audit firm to ensure employers are provided with the information needed to prepare their GAAP based financial statements in compliance with Governmental Accounting Standards Board (GASB), specifically Statements No. 68 and 71. PEBA's public website includes a dedicated GASB section where information is posted for participating employers and auditors to access financial statement disclosure information related to their proportionate share of the net pension liability, deferred inflows and outflows of resources and pension expense.
- GRS Consulting (GRS) is on retainer as the Systems' consulting actuary for the defined benefit retirement plans. South Carolina state statute requires that the actuary complete a valuation of the Systems

annually and conduct an experience study at least once in each five year period. The most recent valuation reports were issued as of July 1, 2017. GRS completed an actuarial experience study on the Systems with the report issued as of July 1, 2015. As a result of the experience study, the actuary recommended adjustments to the actuarial assumptions, which included salary increase, payroll growth, mortality, retirement, terminations, refunds, disability, inflation, and asset valuation method. These recommended assumption and method changes were adopted and incorporated starting with the July 1, 2016 valuations. The experience study also recommended reducing the long-term investment rate of return assumption; the assumed rate of return was reduced from 7.50 to 7.25 percent effective July 1, 2017 as part of the Retirement System Funding and Administration Act of 2017. The 7.25 percent assumed rate of return expires on July 1, 2021, and every four years thereafter, and as such, the PEBA Board, in consultation with the Commission, must propose an assumed annual rate of return based on recommendations of the Board's actuary.

- All of the plans (excluding SCNG) include certain provisions that allow retired members to return to covered employment while also receiving a monthly retirement benefit. For members who return to work for a covered employer after retirement, the employer must pay the corresponding employer contribution for that particular plan, and under SCRS, PORS and JSRS, retired members are also required to pay the same employee contribution as an active member in the same position. Collectively among the plans, the 2017 actuarial valuations reported that approximately 23,500 retirees were working for a covered employer while receiving monthly retirement benefits, either directly or as a TERI participant, thereby making up approximately 8 percent of the total public workforce covered by the Systems. The historical return-to-work provisions, coupled with demographic changes of the membership, caused concern over the long-term stability of the plan so legislation enacted in 2012 addressed retiree return-to-work provisions. Generally, SCRS and PORS members who retire after January 1, 2013, and who have not yet reached age 62 (SCRS) or age 57 (PORS) at retirement, and who have been retired at least 30 calendar days, may return to work for a participating employer, but receipt of their annuity benefit is subject to an earnings limit of \$10,000 on wages earned each calendar year from covered employment. Under SCRS, participants in the TERI program received a deferred accrual for the full monthly retirement benefit, with no limit on the amount of wages they earned from employment.
- Qualified Excess Benefit Arrangement (QEBA) trust funds are maintained for each of the plans administered by the Retirement Division of PEBA (excluding SCNG). A QEBA is intended to be a qualified governmental excess benefit arrangement within the meaning of Section 415(m)(3) of the Internal Revenue Code and provides the part of a participant's retirement benefit that would have been paid by the Systems had there been no limitations under Code Section 415(b). The QEBA plans are separate and apart from the funds comprising the retirement funds and are not commingled with assets of those funds. The QEBA is not prefunded; therefore, no assets or income are accumulated to pay future benefits. The amount of required contributions necessary to pay benefits under the plans is determined and deposited to the trust funds on an as-needed basis. Employer contributions to fund the excess benefits are not credited or commingled with contributions paid into and accumulated in the retirement funds.
- GARS was closed to persons first elected to the South Carolina General Assembly at or after the general election in November 2012. Members so elected to the Senate or House of Representatives have the option to join SCRS, the State Optional Retirement Program (State ORP), which is a defined contribution plan, or they may elect to opt out of a plan altogether. As a result of the plan closure, employee contributions to the GARS plan should decrease over time, while employer contributions may experience a general increase over time.

Condensed Financial Information

The Systems' financial stability and long-term ability to sufficiently fund retirement benefits payable to members in future years is viable because funds are accumulated and invested on a regular and systematic basis. The five defined benefit funds provide monthly service retirement benefits, disability benefits and death benefits to eligible members and/or their surviving beneficiaries.

The Systems' principal sources of revenue are employee contributions, employer contributions and investment earnings. Funds were legislatively appropriated to PEBA and credited towards the contributions due from participating employers in SCRS and PORS for fiscal year 2018. Required annual contributions for the SCNG are funded through an annual state appropriation. Expenses of the Systems consist primarily of payments of monthly annuities to retired members or their beneficiaries, and refunds of member contributions and interest that are paid subsequent to termination of employment. The defined benefit plans include an incidental death benefit for both active and retired members and an accidental death plan for members of PORS.

PEBA sponsors the State ORP which is a defined contribution plan administered by four different third party record keepers. The State ORP is an alternative plan available to newly hired employees of state agencies, institutions of higher education, public school districts and individuals first elected to the General Assembly at or after the general election in November 2012. In addition, PEBA is responsible for the South Carolina Deferred Compensation Plan (401k and 457 plans) administered by a third party record keeper. Both State ORP and Deferred Compensation assets are outside the group trust fund of the Systems and are not invested or managed by the RSIC. Summary comparative financial statements of the SC Retirement Systems' pension trust funds are presented on the following page.

Fiduciary Net Position

As of June 30

(Amounts expressed in thousands)

	2018	2017	Increase / (Decrease)	% Increase / (Decrease)
Assets				
Cash and cash equivalents, receivables, and prepaid expenses	\$ 3,359,600	\$ 3,712,085	\$ (352,485)	(9.50%)
Investments, at fair value	29,243,863	27,995,164	1,248,699	4.46%
Securities lending cash collateral invested	34,612	123,275	(88,663)	(71.92%)
Capital assets, net of accumulated depreciation	2,362	2,537	(175)	(6.90%)
Total assets	<u>32,640,437</u>	<u>31,833,061</u>	<u>807,376</u>	<u>2.54%</u>
Liabilities				
Deferred retirement benefits	377,263	95,327	281,936	295.76%
Obligations under securities lending	34,612	123,275	(88,663)	(71.92%)
Other liabilities	1,021,458	1,397,531	(376,073)	(26.91%)
Total liabilities	<u>1,433,333</u>	<u>1,616,133</u>	<u>(182,800)</u>	<u>(11.31%)</u>
Net Position Restricted for Pensions	<u>\$ 31,207,104</u>	<u>\$ 30,216,928</u>	<u>\$ 990,176</u>	<u>3.28%</u>

Changes in Fiduciary Net Position

Years Ended June 30

(Amounts expressed in thousands)

	2018	2017	Increase / (Decrease)	% Increase / (Decrease)
Additions				
Employee contributions	\$ 1,010,636	\$ 957,779	\$ 52,857	5.52%
Employer contributions	1,528,741	1,375,926	152,815	11.11%
Nonemployer contributions	118,096		118,096	100.00%
State appropriated contributions	4,814	4,591	223	4.86%
Net investment income	2,334,478	3,269,390	(934,912)	(28.60%)
Other income	1,902	1,958	(56)	(2.86%)
Total additions	<u>4,998,667</u>	<u>5,609,644</u>	<u>(610,977)</u>	<u>(10.89%)</u>
Deductions				
Refunds	137,766	125,762	12,004	9.55%
Annuity benefits	3,826,806	3,291,197	535,609	16.27%
Death benefits	25,207	25,133	74	0.29%
Administrative and other expenses	18,712	17,277	1,435	8.31%
Total deductions	<u>4,008,491</u>	<u>3,459,369</u>	<u>549,122</u>	<u>15.87%</u>
Net increase (decrease) in Net Position	990,176	2,150,275	(1,160,099)	(53.95%)
Net Position Restricted for Pensions				
Beginning of year	30,216,928	28,066,653	2,150,275	7.66%
End of year	<u>\$ 31,207,104</u>	<u>\$ 30,216,928</u>	<u>\$ 990,176</u>	<u>3.28%</u>

Analysis of the Plan's Financial Position and Results of Operations

On a combined basis, the defined benefit plans' fiduciary net position was valued at \$31.2 billion at June 30, 2018. This represents an increase of over three percent in net position from the previous fiscal year-end. The increase in the fiduciary net position from the prior fiscal year was primarily attributable to strong performance of the plan investments which exceeded the impact of net negative cash flows that result from benefit payments exceeding contributions received.

During fiscal year 2018, the total dollar amount of contributions added to the plans increased in accordance with the increase in employer and employee contribution rates, while monthly retirement benefits paid to annuitants also increased compared with the previous fiscal year. As previously referenced, the increase in benefits was attributable to a benefit adjustments granted to eligible SCRS and PORS annuity recipients effective July 1, 2017, an increase in the number of annuitants and distributions paid to members due to the closing of the TERI program.

The Plan experienced strong performance for the fiscal year having a net of fee performance return, on a time-weighted basis, of a positive 7.82 percent. The Plan outperformed the policy benchmark, which returned a positive 7.28 percent, by 54 basis points. Additionally, the Plan exceeded the actuarial assumed rate of return of 7.25 percent by 57 basis points.

The Private Equity asset class, comprising 7.4 percent of the Plan, was the highest performing asset class on an absolute basis returning 14.91 percent. Relative to its benchmark, however, it underperformed by 212 basis points. Private Real Estate was the second highest performing asset class on an absolute basis returning 11.39 percent and exceeded its benchmark by 257 basis points. Global Public equity, the largest allocation in the Plan at 36.3 percent, was the third highest performing asset class returning 10.13 percent but falling short of the benchmark return of 11.14 percent. The Other Opportunistic and Private Debt asset classes, both beating their benchmarks, returned 9.63 percent and 7.58 percent respectively. Equity options returned 6.85 percent verses its benchmark return of 7.28 percent. Public Real Estate returned 6.75 percent and Mixed Credit return 4.58 percent and both beat their benchmarks which returned 3.50 percent and 3.49 percent respectively. Hedge Funds (non-PA) and GTAA return 3.28 percent and 3.17 percent respectively and both fell short of their benchmark. The World Infrastructure asset class returned 2.35 percent verse its benchmark return of 2.48 percent.

Emerging Markets Debt, returning a negative 2.56 percent, was the lowest performing asset class in the Plan and underperformed its benchmark by 66 basis points. Core Fixed Income was the only other asset class with negative performance returning a negative 1.11 percent and falling short of the benchmark by 71 basis points.

Actuarial Valuations and Funding Progress

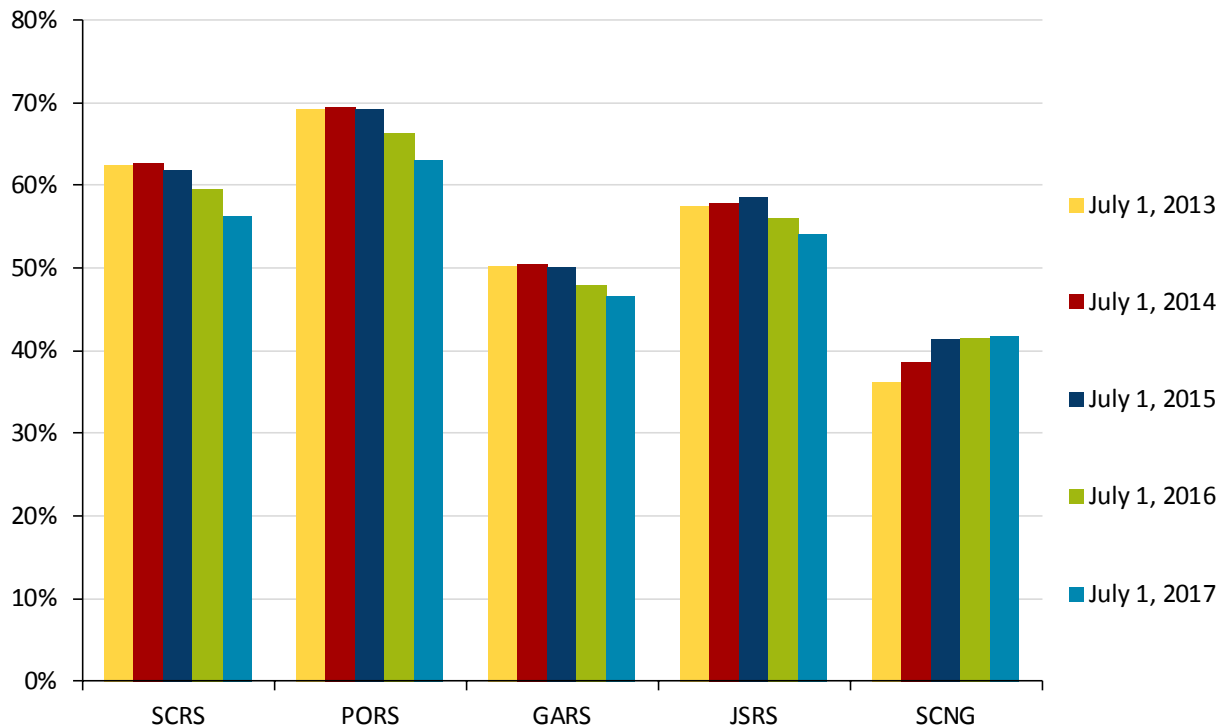
Actuarial valuations are performed annually by an external consulting actuary for each of the five defined benefit plans to ensure applicable contribution rates satisfy the funding parameters specified in Title 9 of the South Carolina Code of Laws. Under these provisions, SCRS and PORS contribution requirements must be sufficient to maintain an amortization period for the financing of the unfunded actuarial accrued liability (UAAL) over a period that does not exceed the number of years scheduled in state statute. Additionally, the Board is prohibited from decreasing the SCRS and PORS contribution rates until the funded ratio is at least 85 percent. The Retirement System Funding and Administration Act of 2017, which became effective on July 1, 2017, schedules the amortization period to be reduced by one year for each of the next 9 years to 20 years. Over time, and provided investment performance meets long-term assumptions and there are no future benefit enhancements, the funded ratio of each system is expected to increase and eventually attain 100 percent.

For purposes of developing the actuarially determined contribution rate, the most recently completed valuations prepared as of July 1, 2017, recognized investment performance using the smoothing method which recognizes each year's investment gain or loss, determined on a market value of assets basis, over a closed five year period at a rate of 20 percent per year. This asset valuation method mitigates the short term impact of market volatility and allows changes in market conditions to be recognized (smoothed) over a longer period of time. In contrast, the actuarial valuation also determines the plan fiduciary net position for the purpose of providing accounting information under GASB Statement No. 67, which uses a market value basis. Since the actuarial valuation prepared for accounting purposes uses the market value of assets rather than the actuarial value of assets, the ratio of plan fiduciary net position to the total pension liability can result in significant short-term volatility.

For the actuarial valuations prepared for funding purposes, the funded ratio (the ratio of the actuarial assets to the actuarial accrued liability) is a standard of measure of a plan's funded status. It provides an indication as to whether sufficient assets are accumulated to pay benefits when due; the greater the level of funding, the larger the ratio of assets to liabilities. The funding progress of a retirement system should be reviewed over a multi-year period, such as five to ten years, to identify trends in the system's funded status. The most recent actuarial valuations prepared for funding purposes as of July 1, 2017, showed a slight decrease in funded status for SCRS, PORS, GARS and JSRS while the funded ratio for SCNG stayed relatively level. The changes in the levels of funding do not affect the availability of funds or resources for future use and actuarial projections indicate that unfunded liabilities should be amortized and funded within the guidelines established in Title 9 of the SC Code of Laws. The actuarial funded ratios of the five plans are presented in the graph on the following page. Percentages for GASB Statement No. 67 reporting purposes can be found in the Schedule of Employers' and Nonemployer's Net Pension Liability beginning on Page 62.

Actuarial Funded Ratios

(Actuarial assets as a percentage of actuarial accrued liabilities)



Requests for Information

This financial report is designed to provide a general overview of the Retirement Systems' financial activities and position for all interested parties. Questions concerning any of the information provided in this report or requests for additional financial information should be directed to the South Carolina PEBA, Attn: Retirement Systems Finance, 202 Arbor Lake Drive, Columbia, SC 29223. Inquiries may also be made at www.peba.sc.gov or by calling 888.260.9430.

South Carolina Retirement Systems

Statement of Fiduciary Net Position

June 30, 2018

With summarized comparative totals for June 30, 2017

(Amounts expressed in thousands)

	SCRS	PORS	GARS	JSRS	SCNG	TOTAL	2017 TOTAL
Assets							
Cash and cash equivalents	\$ 2,002,590	\$ 331,698	\$ 5,389	\$ 13,768	\$ 4,648	\$ 2,358,093	\$ 2,651,273
Receivables							
Due from other systems		278				278	397
Employee and employer contributions	303,213	32,357	32	810		336,412	256,491
Accrued investment income	39,429	6,763	49	236	42	46,519	43,256
Unsettled investment sales	520,220	89,148	592	3,081	502	613,543	756,013
Other investment receivables	986	169	1	6	1	1,163	809
Total receivables	863,848	128,715	674	4,133	545	997,915	1,056,966
Investments, at fair value							
Short-term securities	497,097	85,186	566	2,944	479	586,272	653,510
Fixed Income	4,482,965	768,228	5,104	26,549	4,322	5,287,168	6,392,261
Global Public Equity	9,138,590	1,566,046	10,405	54,120	8,810	10,777,971	9,939,742
Global Tactical Asset Allocation	2,622,481	449,405	2,986	15,530	2,528	3,092,930	2,065,561
Alternatives	8,054,600	1,380,287	9,170	47,700	7,765	9,499,522	8,944,090
Total investments	24,795,733	4,249,152	28,231	146,843	23,904	29,243,863	27,995,164
Securities lending cash collateral invested	29,348	5,029	33	174	28	34,612	123,275
Prepaid expenses	3,075	492	4	18	3	3,592	3,846
Capital assets, net of accumulated depreciation	2,126	220	6	10		2,362	2,537
Total assets	27,696,720	4,715,306	34,337	164,946	29,128	32,640,437	31,833,061
Liabilities							
Due to other systems	278					278	397
Accounts payable - unsettled investment purchases	728,900	124,909	830	4,317	703	859,659	1,251,053
Investment fees payable	10,783	1,848	12	64	10	12,717	12,767
Obligations under securities lending	29,348	5,029	33	174	28	34,612	123,275
Deferred retirement benefits	377,263					377,263	95,327
Due to Employee Insurance Program	65,787	1,282				67,069	63,938
Benefits payable	4,082	486			2	4,570	4,208
Other liabilities	65,363	11,321	68	355	58	77,165	65,168
Total liabilities	1,281,804	144,875	943	4,910	801	1,433,333	1,616,133
Net Position Restricted for Pensions	\$ 26,414,916	\$ 4,570,431	\$ 33,394	\$ 160,036	\$ 28,327	\$ 31,207,104	\$ 30,216,928

The accompanying notes are an integral part of these financial statements.

South Carolina Retirement Systems

Statement of Changes in Fiduciary Net Position

Year Ended June 30, 2018

With summarized comparative totals for the year ended June 30, 2017
(Amounts expressed in thousands)

	SCRS	PORS	GARS	JSRS	SCNG	TOTAL	2017 TOTAL
Additions							
Contributions							
Employee	\$ 868,681	\$ 138,652	\$ 287	\$ 3,016	\$ -	\$ 1,010,636	\$ 957,779
Employer	1,300,477	211,793	5,428	11,043		1,528,741	1,375,926
Nonemployer	104,974	13,122				118,096	
State appropriated					4,814	4,814	4,591
Total contributions	2,274,132	363,567	5,715	14,059	4,814	2,662,287	2,338,296
Investment income							
Net appreciation							
in fair value of investments	1,794,429	299,669	2,090	10,491	1,669	2,108,348	3,094,632
Interest and dividend income	508,252	85,823	647	3,101	536	598,359	488,577
Investment expense	(317,426)	(54,249)	(363)	(1,879)	(305)	(374,222)	(314,592)
Net income from investing activities	1,985,255	331,243	2,374	11,713	1,900	2,332,485	3,268,617
From securities lending activities:							
Securities lending income	1,885	318	2	11	2	2,218	572
Securities lending borrower rebates	(192)	(32)		(1)		(225)	201
Net income from securities lending activities	1,693	286	2	10	2	1,993	773
Total net investment income	1,986,948	331,529	2,376	11,723	1,902	2,334,478	3,269,390
Supplemental retirement benefits funded by the State	355	13				368	408
Transfers of contributions from other Systems		1,534				1,534	1,550
Total additions	4,261,435	696,643	8,091	25,782	6,716	4,998,667	5,609,644
Deductions							
Refunds of contributions to members	113,867	23,899				137,766	125,762
Transfers of contributions to other Systems	1,534					1,534	1,550
Regular retirement benefits	2,718,718	369,536	6,452	17,655	4,411	3,116,772	2,956,627
Deferred retirement benefits	707,932					707,932	332,414
Supplemental retirement benefits	355	13				368	408
Death benefits	22,284	2,751	16	156		25,207	25,133
Accidental death benefits		1,734				1,734	1,748
Depreciation	190	25		1		216	269
Administrative expenses	14,468	2,377	18	85	14	16,962	15,458
Total deductions	3,579,348	400,335	6,486	17,897	4,425	4,008,491	3,459,369
Net increase in Net Position	682,087	296,308	1,605	7,885	2,291	990,176	2,150,275
Net Position Restricted for Pensions							
Beginning of year	25,732,829	4,274,123	31,789	152,151	26,036	30,216,928	28,066,653
End of year	\$ 26,414,916	\$ 4,570,431	\$ 33,394	\$ 160,036	\$ 28,327	\$ 31,207,104	\$ 30,216,928

The accompanying notes are an integral part of these financial statements.

South Carolina Retirement Systems

Notes to Financial Statements

I. Basis of Presentation and Summary of Significant Accounting Policies

Description of the Entity

The South Carolina Public Employee Benefit Authority (PEBA) was created by the S.C. General Assembly effective July 1, 2012. PEBA is a state agency responsible for the administration and management of the state's employee insurance programs and retirement systems.

The governing board of the authority is a board of directors consisting of 11 members. The membership composition is as follows:

- three non-representative members appointed by the Governor;
- two members appointed by the President Pro Tempore of the Senate, one a non-representative member and one a representative member who is either an active or retired member of the South Carolina Police Officers Retirement System (PORS);
- two members appointed by the Chairman of the Senate Finance Committee, one a non-representative member and one a representative member who is a retired member of the South Carolina Retirement System (SCRS);
- two members appointed by the Speaker of the House of Representatives, one a non-representative member and one a representative member who must be a state employee who is an active contributing member of SCRS;
- two members appointed by the Chairman of the House Ways and Means Committee, one a non-representative member and one a representative member who is an active contributing member of SCRS employed by a public school district.

Non-representative members of the PEBA board may not belong to the classes of employees and retirees from which representative members must be appointed. Individuals appointed to the PEBA board must possess certain qualifications.

Members of the PEBA board serve for terms of four years, on a staggered schedule and until their successors are appointed and qualify. Vacancies on the PEBA Board must be filled within 60 days in the manner of the original appointment for the unexpired portion of the term.

The financial statements of the South Carolina Retirement Systems (Systems) presented herein contain the following funds:

Pension Trust Funds

- South Carolina Retirement System (SCRS)
- South Carolina Police Officers Retirement System (PORS)
- Retirement System for Members of the General Assembly of the State of South Carolina (GARS)
- Retirement System for Judges and Solicitors of the State of South Carolina (JSRS)
- South Carolina National Guard Supplemental Retirement Plan (SCNG)

Each pension trust fund operates on an autonomous basis; funds may not be utilized for any purpose other than for the benefit of each plan's participants.

The Systems are part of the state of South Carolina's primary government and are included in the *Comprehensive Annual Financial Report of the State of South Carolina*. In making this determination, factors of financial accountability, governance and fiduciary responsibility of the state were considered.

Plan Descriptions

The South Carolina Retirement System (SCRS), a cost-sharing multiple-employer defined benefit pension plan, was established effective July 1, 1945, pursuant to the provisions of Section 9-1-20 of the South Carolina Code of Laws for the purpose of providing retirement allowances and other benefits for public school districts and employees of the state and political subdivisions thereof.

The South Carolina Police Officers Retirement System (PORS), a cost-sharing multiple-employer defined benefit pension plan, was established effective July 1, 1962, pursuant to the provisions of Section 9-11-20 of the South Carolina Code of Laws for the purpose of providing retirement allowances and other benefits for police officers and firemen of the state and its political subdivisions.

The Retirement System for Members of the General Assembly of the State of South Carolina (GARS), a single-employer defined benefit pension plan, was created effective January 1, 1966, pursuant to the provisions of Section 9-9-20 of the South Carolina Code of Laws to provide retirement allowances and

other benefits for members of the General Assembly. Retirement reform legislation closed the plan to individuals newly elected to the Senate or House of Representatives on or after the general election of 2012.

The Retirement System for Judges and Solicitors of the State of South Carolina (JSRS), a single-employer defined benefit pension plan, was created effective July 1, 1979, pursuant to the provisions of Section 9-8-20 of the South Carolina Code of Laws for the purpose of providing retirement allowances and other benefits for judges, solicitors, circuit public defenders of the state and administrative law court judges.

The South Carolina National Guard Supplemental Retirement Plan (SCNG), a single-employer defined benefit pension plan, was created effective July 1, 1975, and is governed by the provisions of Section 9-10-30 of the South Carolina Code of Laws for the purpose of providing supplemental retirement benefits to certain members who served in the South Carolina National Guard.

A summary of information related to participating employers and members follows (dollars amounts expressed in thousands). This information was reported in the most recent actuarial valuation reports dated July 1, 2017.

	State	School	Other	Total
SCRS				
Number of Employers ¹	27	118	578	723
Annual Covered Payroll for Active Members	\$2,441,830	\$3,485,110	\$2,343,931	\$8,270,871
Average Number of:				
Active Contributing Members	51,775	86,239	55,971	193,985
Retirees and beneficiaries currently receiving benefits				140,288
Terminated members entitled to but not yet receiving benefits ²				176,045
Total SCRS Membership				510,318
PORS				
Number of Employers ¹	18	3	286	307
Annual Covered Payroll for Active Members	\$368,221		\$795,369	\$1,163,590
Average Number of:				
Active Contributing Members	9,152		17,904	27,056
Retirees and beneficiaries currently receiving benefits				17,887
Terminated members entitled to but not yet receiving benefits ²				16,004
Total PORS Membership				60,947
GARS				
Number of Employers	1			1
Annual Covered Payroll for Active Members	\$1,961			\$1,961
Average Number of:				
Active Members	87			87
Retirees and beneficiaries currently receiving benefits	354			354
Terminated members entitled to but not yet receiving benefits	35			35
Total GARS Membership	476			476
JSRS				
Number of Employers	1			1
Annual Covered Payroll for Active Members	\$22,347			\$22,347
Average Number of:				
Active Members (160 positions)	160			160
Retirees and beneficiaries currently receiving benefits	213			213
Terminated members entitled to but not yet receiving benefits	3			3
Total JSRS Membership	376			376
SCNG				
Number of Employers	1			1
Annual Covered Payroll for Active Members ³	N/A			N/A
Average Number of:				
Active Members	12,116			12,116
Retirees and beneficiaries currently receiving benefits	4,789			4,789
Terminated members entitled to but not yet receiving benefits	1,901			1,901
Total SCNG Membership	18,806			18,806

¹ Although there are 92 SCRS, 26 PORS, 2 GARS and 4 JSRS state agencies that report separately, the State is considered the primary government and therefore, all state agencies and Quasi-State Agencies are included as a single employer. Institutions of Higher Education are counted as separate employers and included within the "State" category.

² Employee Class not determinable from data.

³ Annual covered payroll is not applicable for SCNG because it is a non-contributory plan.

Membership

Membership requirements are prescribed in Title 9 of the South Carolina Code of Laws. A brief summary of the requirements under each system is presented below.

SCRS

Generally, all employees of covered employers are required to participate in and contribute to the system as a condition of employment. This plan covers general employees and teachers and individuals newly elected to the South Carolina General Assembly beginning with the November 2012 general election. A member of the system with an effective date of membership prior to July 1, 2012, is a Class Two member. A member of the system with an effective date of membership on or after July 1, 2012, is a Class Three member.

State ORP

As an alternative to membership in SCRS, newly hired state, public school and higher education employees and individuals newly elected to the S.C. General Assembly beginning with the November 2012 general election have the option to participate in the State Optional Retirement Program (State ORP), which is a defined contribution plan. State ORP participants direct the investment of their funds into an account administered by one of four third party administrators. The Retirement Systems assumes no liability for State ORP benefits. Rather, the benefits are the liability of the four third party administrators. For this reason, State ORP assets are not considered part of the Systems for financial statement purposes.

Contributions to the State ORP are at the same rates as SCRS. A direct remittance is required from the employers to the investment providers for the employee contribution (9 percent) and a portion of the employer contribution (5 percent). A direct remittance is also required to SCRS for a portion of the employer contribution (8.41 percent) and a death benefit contribution (0.15 percent), which is retained by SCRS. The activity for the State ORP is as follows:

State ORP Activity

Year Ended June 30, 2018

(Dollar amounts expressed in thousands)

Active Contributing Participants	30,055
Annual Covered Payroll	\$1,506,014
Employer Contributions Retained by SCRS	\$126,656
Death Benefit Contributions Retained by SCRS	\$2,259
Employee Contributions to Investment Providers	\$135,541
Employer Contributions to Investment Providers	\$75,301

PORS

To be eligible for PORS membership, an employee must be required by the terms of his employment, by election or appointment, to preserve public order, protect life and property and detect crimes in the state; to prevent and control property destruction by fire; be a coroner in a full-time permanent position; or be a peace officer employed by the Department of Corrections, the Department of Juvenile Justice or the Department of Mental Health. Probate judges and coroners may elect membership in PORS. Magistrates are required to participate in PORS for service as a magistrate. PORS members, other than magistrates and probate judges, must also earn at least \$2,000 per year and devote at least 1,600 hours per year to this work, unless exempted by statute. A member of the system with an effective date of membership prior to July 1, 2012, is a Class Two member. A member of the system with an effective date of membership on or after July 1, 2012, is a Class Three member.

GARS

Members of the Senate and the House of Representatives who were first elected to office prior to November 2012 are required to participate in and contribute to the system upon taking office as a member of the S.C. General Assembly; however, the GARS plan is closed to individuals newly elected to the Senate or the House of Representatives on or after the general election of 2012.

JSRS

All solicitors, circuit public defenders, judges of a Circuit, Family or Administrative Law Court and justices of the Court of Appeals and Supreme Court are required to participate in and contribute to the system upon taking office.

SCNG

Membership consists of individuals who serve in the South Carolina National Guard.

Pension Benefits

Benefit terms are prescribed in Title 9 of the South Carolina Code of Laws. PEBA does not have the authority to establish or amend benefit terms without a change in the code of laws. Key elements of the benefit calculation include the benefit multiplier, years of service and average final compensation/current annual salary. A brief summary of benefit terms for each system is presented below.

SCRS

A Class II member who has separated from service with at least five years of earned service is eligible for a monthly pension at age 65 or with 28 years credited service regardless of age. A member may elect early retirement with reduced pension benefits payable at age 55 with 25 years of service credit. A Class III member who has separated from service with at least eight years of earned service is eligible for a monthly pension subject to the Rule of 90 requirement that the total of the member's age and the member's creditable service equals at least 90 years. Both Class II and Class III members are eligible to receive a reduced deferred annuity at age 60 if they satisfy the five- or eight-year earned service requirement, respectively. An incidental death benefit is also available to beneficiaries of active and retired members of employers who participate in the death benefit program.

The annual retirement allowance of eligible retirees or their surviving annuitants is increased by the lesser of one percent or five hundred dollars every July 1. Only those annuitants in receipt of a benefit on July 1 of the preceding year are eligible to

receive the increase. Members who retire under the early retirement provisions at age 55 with 25 years of service are not eligible for the benefit adjustment until the second July 1 after reaching age 60 or the second July 1 after the date they would have had 28 years of service credit had they not retired.

PORS

A Class II member who has separated from service with at least five years of earned service is eligible for a monthly pension at age 55 or with 25 years of service regardless of age. A Class III member who has separated from service with at least eight years of earned service is eligible for a monthly pension at age 55 or with 27 years of service regardless of age. Both Class II and Class III members are eligible to receive a deferred annuity at age 55 with five or eight years earned service, respectively. An incidental death benefit is also available to beneficiaries of active and retired members of employers who participate in the death benefit program. Accidental death benefits are also provided upon the death of an active member working for a covered employer whose death was a natural and proximate result of an injury incurred while in the performance of duty.

The retirement allowance of eligible retirees or their surviving annuitants is increased by the lesser of one percent or five hundred dollars every July 1. Only those annuitants in receipt of a benefit on July 1 of the preceding year are eligible to receive the increase.

GARS

A member is eligible for a monthly pension at age 60 or with 30 years credited service. A member who has attained age 70 or has 30 years of service is eligible to retire and draw an annuity while continuing to serve in the General Assembly. A member is eligible to receive a deferred annuity with eight years of service. An incidental death benefit is also provided to beneficiaries of deceased members. Retirees receive increases in benefits based upon increases in the current salary of their respective active positions. GARS is closed to new members and persons newly elected to the General

Assembly must elect membership in SCRS or State ORP or may elect non-membership.

JSRS

A pension benefit is payable at age 70 with 15 years' service, age 65 with 20 years' service, 25 years' service regardless of age for a judge or 24 years of service for a solicitor or a circuit public defender regardless of age. A judge is vested in the system after attaining 10 years of earned service in the position of judge, and a solicitor or a circuit public defender is vested in the system after attaining eight years of earned service. A member who has reached maximum eligibility is eligible to retire and draw an annuity while continuing to serve. An incidental death benefit is also provided to members. Retirees receive increases in benefits based upon increases in the current salary of their respective active positions.

SCNG

A monthly pension is payable at age 60 provided the member was honorably discharged from active duty with at least 20 years of total creditable military service. Of the 20 years total creditable military service, at least 15 must have been served in the South Carolina National Guard. Additionally, the final 10 years of military service must have been served in the South Carolina National Guard. No cost-of-living increases are provided to SCNG retirees.

Summary of Significant Accounting Policies

Fund Structure

The Systems' accounts are maintained in accordance with the principles of fund accounting. This is the procedure whereby resources for various purposes are classified for accounting and reporting purposes into funds that are in accordance with specified activities or objectives. Separate pension trust funds (fiduciary fund type) are used to account for the activities of the five public employee retirement systems administered by PEBA.

Comparative Totals

The basic financial statements include certain prior-year summarized comparative information in total but not at the level of detail required for a presentation in accordance with generally accepted accounting principles. Accordingly, such information should be read in conjunction with the Systems' financial statements for the year ended June 30, 2017, from which the summarized information was derived.

Basis of Accounting

All funds are accounted for using the economic resources measurement focus and the accrual basis of accounting. Revenues are recognized when earned and expenses are recognized when incurred. Benefit and refund expenses are recognized when due and payable in accordance with the terms of the plan.

Administrative Expenses

Administrative expenses are the responsibility of PEBA and all accounting and corresponding disclosures relating to administrative expenses of the pension trust funds are included in the financial statements of the Systems.

Administrative expenses for the Retirement Division of PEBA are funded by the trust funds and are allocated to each of the systems based on its respective portion of total assets in order to pay for actual expenses incurred during the year.

Administrative expenses of the Systems include the Retirement Division's portion of PEBA employee salaries and associated employee benefits, costs for contractual services and operating expenses.

Cash and Cash Equivalents

The Systems classify cash on deposit in financial institutions and cash on deposit in the state's internal cash management pool as cash and cash equivalents. The Systems also classify certain short-term highly liquid securities as cash equivalents if the date of maturity is three months or less from the date of acquisition. Forward contracts, foreign currencies and cash held in the strategic partnership

accounts are also classified as cash and cash equivalents.

Contributions

Employee, employer, nonemployer and state appropriated contributions are recognized in the period in which they are due, pursuant to formal commitments as well as statutory requirements. Substantially all contributions receivable are collected within 30 days of year-end.

Investments

The Retirement System Investment Commission (Commission as the governing body, RSIC as the agency), created by the General Assembly in 2005, has exclusive authority for investing and managing all assets held in trust for the South Carolina Retirement Systems. The Commission serves as co-trustee and co-fiduciary for the Retirement Systems. Funds of the Systems are invested subject to the terms, conditions, limitations, and restrictions imposed by Section 16, Article X of the South Carolina Constitution and Section 9-1-1310 (B) and Title 9 Chapter 16 of the South Carolina Code of Laws. The funds and assets of the various state retirement systems are not funds of the State, but are instead held in trust as provided in Section 9-16-20.

The RSIC is structured as a separate state agency reporting to a body of appointed and ex officio Commissioners. The Commission is an eight member board as provided in Section 9-16-315 of the South Carolina Code of Laws. The Commission employs a Chief Executive Officer (CEO) who serves as the agency head of the RSIC, reporting directly to the Commission, with functions and duties assigned by the Commission. The CEO is the central source of authority and accountability for administrative decisions. In addition, the Commission employs a Chief Investment Officer (CIO) who reports to the CEO for day to day oversight and strategic planning objectives and who serves as the central source of authority and accountability for all investment decisions delegated to him or her by the Commission and state law. The Commission also engages external investment consultants, who are

accountable to the Commission, to work collaboratively with RSIC staff to fulfill the duties of investing the Systems' portfolio.

As with PEBA, administrative costs of the RSIC are paid from the Systems, and its budget is funded entirely from the trust fund. Costs include Commissioner, investment and administrative staff compensation, as well as other contractual services and other operating expenses. The allocation of those administrative costs is based upon a proration of such costs in proportion to the assets that each system bears to the total assets of all of the systems for the most recently completed fiscal year.

The Commission has adopted a Statement of Investment Objectives and Policies (SIOP) in order to establish investment and performance objectives, policies and guidelines, roles, responsibilities and delegation of authority for the investment and management of assets of the Systems. The SIOP is reviewed by the Commission at least annually to determine its continued applicability. The SIOP provides the framework pursuant to which the CIO and staff develop the Annual Investment Plan (AIP), which provides a formal plan for investing the Systems' assets to achieve the Commission's investment objectives and mission. As required by Section 9-16-320, the AIP must be submitted to the Commission no later than April 1 of each year, and the Commission must meet no later than May 1 of each year to adopt the proposed AIP for the following fiscal year. The Commission may amend the SIOP and AIP during the fiscal year as it deems appropriate.

The Commission manages Systems' assets with a long-term horizon and seeks to earn an appropriate risk-adjusted return in consideration of the specific goals, needs and circumstances of the Systems and in the exclusive interest of members of the Systems. Among the decisions the Commission can make, asset allocation has the most significant impact on the portfolio's return, risk profile and cost and is reviewed annually as part of the development of the AIP.

Based on the Commission's determination of the appropriate risk tolerance for the Portfolio and its long-term return expectations, it has authorized the following Policy Asset Allocation, including target allocations and ranges for each asset class that were adopted by the Commission for the fiscal year beginning July 1, 2017.

Asset Class	Policy Allocation	Minimum	Maximum
Equity	47.0%	42.0%	52.0%
Global Equity ^{1,2}	33.0%	20.0%	36.0%
Private Equity ^{2,3}	9.0%	6.0%	14.0%
Equity Options Strategies	5.0%	0.0%	6.0%
Conservative Fixed Income	12.0%	10.0%	16.0%
Cash & Short Duration ⁴	2.0%	0.0%	7.0%
Core Bonds	10.0%	5.0%	15.0%
Diversified Credit	18.0%	15.0%	21.0%
Mixed Credit ^{1,2}	6.0%	2.0%	8.0%
Private Debt ^{1,2,3}	7.0%	4.0%	12.0%
Emerging Markets Debt ¹	5.0%	3.0%	7.0%
Opportunistic	13.0%	9.0%	19.0%
GAA ^{1,4}	8.0%	3.0%	12.0%
Hedge Funds (Non-PA) ¹	2.0%	0.0%	8.0%
Other Opportunistic Strategies ¹	3.0%	0.0%	5.0%
Real Assets	10.0%	8.0%	14.0%
Real Estate-REITs ²	2.0%	0.0%	3.0%
Real Estate-Private ^{2,3}	6.0%	4.0%	12.0%
World Infrastructure	2.0%	0.0%	5.0%

¹Asset classes in which hedge funds can be used, including for portable alpha implementation, up to a maximum of 20% of total assets.

Portable Alpha Strategies are capped at 12% of total assets.

²The target weights to Private Equity, Private Debt and Real Estate will be equal to their actual weights as of prior month end. Private Equity and Public Equity will combine for 42% of the entire portfolio. Private Debt and Mixed Credit will combine for 13% of the entire portfolio. Private Real Estate and Real Estate (REITs) will combine for 8% of the entire portfolio.

³Staff and Consultant will notify the Commission if Private Markets assets exceed 25% of total assets.

⁴Adopted asset allocation provided for a 1 percentage point increase in Cash & Short Duration to 3% and a 1 percentage point decrease in GAA to 7% on 12/1/17.

At June 30, 2018, the Systems held no investments (other than those issued or explicitly guaranteed by the U.S. government) in any one organization that represent 5 percent or more of the plans' fiduciary net position.

For the year ended June 30, 2018, the annual money weighted rate of return on plan investments was 7.91 percent. The money weighted rate of return expresses investment performance, net of investment expenses, adjusted for the changing amounts actually invested.

As a fiduciary acting on behalf of the Systems, the Commission enters into individual agreements with various investment managers to invest plan assets. As of June 30, 2018, legal agreements were in place with 147 investment managers.

Effective July 1, 2017, the Retirement System Funding and Administration Act of 2017 assigned the PEBA Board as custodian of the retirement trust funds and designated PEBA and RSIC as co-trustees of the retirement trust funds. The legislation also gave the Commission the exclusive authority to select the custodial bank provided that PEBA is a third-party beneficiary of the contract with the custodial bank, with full rights to information.

BNYM serves as custodial bank of the funds of the Retirement Systems. Assets also include investments not custodied at BNYM, such as funds held in partnerships, commingled accounts, or private market asset classes. The custodial bank provides consolidated recordkeeping services which reflects these securities not held in the custodian's vault or for which the custodian or its nominee is not the registered owner (non-custody securities).

For financial statement purposes, investments of the pension trust funds are reported at fair value in the Statement of Fiduciary Net Position. Short term securities categorized as cash or cash equivalents are reported at fair value. The Systems hold domestic and global equity securities which are traded on organized exchanges. Equity securities which are held by the custodian are valued by the custodian using the last reported price on a trade-date basis. The Systems hold domestic and global fixed income securities. The custodian values those fixed income assets which are held in custody based upon prices received from external pricing sources and in accordance with the custodian's pricing policy. Commingled funds, which may contain

equity and/or fixed income securities are priced based upon the manager's pricing policy and a Net Asset Value (NAV) is provided to the custodian. Private market investments typically utilize a limited partnership structure and private equity funds normally invest in companies that are not publicly traded on a stock exchange. The fair values of alternative investments including private equity, private debt, hedge funds, real estate and commodities, for which daily market values are not readily ascertainable, are valued in good faith based on the most recent financial information available for the underlying companies and reported by the investment managers at the measurement date, adjusted for subsequent cash flow activities through June 30, 2018. The issue of valuation of investments is a joint responsibility of PEBA and RSIC. Staff from both offices serve on a joint valuation committee which oversees and reviews the valuations provided by the custodian and/or the external investment managers. The estimated fair value of these investments is intended to approximate, but at times may differ, from values that would have been used had a liquid public market existed.

Investments are combined in a commingled investment pool, with each system owning a percentage of the pool and receiving proportionate investment income in accordance with their respective ownership percentage. Investment income includes realized and unrealized appreciation (depreciation) in the fair value of investments, interest income earned, dividend income earned, less investment expense, plus income from securities lending activities, less deductions for securities lending expenses.

While some investment managers submit invoices for their investment management fees, a significant number of investment managers provide account valuations on a net of fee basis. For greater transparency, the RSIC makes a good faith attempt to account for netted fee amounts that are not necessarily readily separable. Through a concerted effort with Conifer Financial Services, administrator for the RSIC, the collection, aggregation, and reasonability testing enables RSIC to provide the

Retirement Division of PEBA with a collection of investment fees and expenses that would not otherwise be disclosed. The RSIC provides the netted fee information to PEBA on an annual basis so that amounts can be reclassified and reported in the financial statements on the Investment expense line of the Statement of Changes in Fiduciary Net Position. The non-invoiced investment expenses include amounts for investment management fees, performance fees (including carried interest allocations), and other investment expenses such as organizational expenses in limited partnership structures. The total netted fee amounts reported also reflect the impact of any offsets which have the effect of reducing this total. There is no industry standard for reporting pension plan investment fees and expenses, therefore, in order to compare investment expense as reported by the Systems with investment management costs reported by other public pension plans, an understanding of the actual fees and expenses included in any comparative reports is necessary. Additionally, investment plan composition directly influences the fee structure of a plan and adjustments for differences in plan asset allocation are necessary before conclusions can be reached from such comparisons.

Capital Assets

Capital Assets are valued at historical cost or at estimated historical cost if actual historical cost data is not available. The costs of normal maintenance and repairs that do not significantly add to the value of an asset or materially extend the asset's useful life are not capitalized. An individual asset is capitalized and reported if it has an estimated useful life of at least two years and a historical cost as follows: more than \$5 thousand for machinery and equipment; more than \$100 thousand for buildings. All land and non-depreciable land improvements are capitalized and reported, regardless of cost. Depreciation is recorded using the straight line method over the useful life of 40 years for the building and a useful life of 2 to 25 years for equipment. Land is not depreciated.

II. Contributions and Reserves

Contributions to each of the Plans are prescribed in Title 9 of the South Carolina Code of Laws. The board may increase the percentage rate in SCRS and PORS employer contributions on the basis of the actuarial valuations. If the scheduled employee and employer contributions provided in statute or the rates last adopted by the board are insufficient to maintain a twenty-nine year amortization schedule of the unfunded liabilities of the plans, the board shall increase the contribution rates for the employer as necessary to maintain the amortization period.

If the most recent annual actuarial valuation of the Systems for funding purposes shows a ratio of the actuarial value of system assets to the actuarial accrued liability of the system (the funded ratio) that is equal to or greater than eighty-five percent, then the board, effective on the following July first, may decrease the then current contribution rates upon making a finding that the decrease will not result in a funded ratio of less than eighty-five percent. If contribution rates are decreased pursuant to this provision, and the most recent annual actuarial valuation of the system shows a funded ratio of less than eighty-five percent, then effective on the following July first, and annually thereafter as necessary, the board shall increase the then current contribution rates until a subsequent annual actuarial valuation of the system shows a funded ratio that is equal to or greater than 85 percent.

The Retirement System Funding and Administration Act established a ceiling on employee contribution rates at 9 percent and 9.75 percent for SCRS and PORS respectively. The employer contribution rates will continue to increase annually by 1 percent through July 1, 2022. The legislation's ultimate scheduled employer rate is 18.56 percent for SCRS and 21.24 percent for PORS. The amortization period is scheduled to be reduced one year for each of the next 9 years to a twenty year amortization schedule.

Employer contribution rates for SCRS and PORS increased by more than one percentage point for fiscal year 2018; therefore, in accordance with the South Carolina 2017-2018 Appropriations Act, Section 117.151, funds were legislatively appropriated to PEBA for the Retirement System Trust Funds for contributions due from participating employers. Amounts were credited toward the contributions due from participating employers for Fiscal Year 2018 based on each employer's proportionate share of the appropriated funds. Funds appropriated for SCRS and PORS totaled \$105 million and \$13.1 million respectively.

Following are the employee and employer contribution rates applicable for fiscal year 2018 (amounts expressed in thousands):

System	Employee Rate	Employer Rate
SCRS	9%	13.56% ¹
PORS	9.75%	16.24% ²
GARS	11%	\$5,428 ³
JSRS	10%	49.42% ³
SCNG	Non-contributory	\$4,814

¹ Includes incidental death benefit contribution rate of 0.15%

² Includes incidental death benefit and accidental death benefit contribution rate of 0.20% each

³ Includes incidental death benefit contributions as determined by the Systems' actuary

Employer contributions for GARS and SCNG are determined by the Systems' actuary on an annual basis. SCNG employer contributions are provided annually by state appropriations.

In accordance with South Carolina State Statute, for fiscal year 2018, an additional employer contribution surcharge of 5.50 percent of covered payroll was added to the contribution rate applicable to state and local governments, and public school entities covered by the state's retiree health and dental insurance benefits. This assessment is for the purpose of providing retiree health and dental insurance coverage and is not a part of the actuarially established contribution rates for retirement funding purposes. Functioning as a

collecting agent, SCRS and PORS collected (amounts expressed in thousands) \$449,740 and \$24,053 respectively in retiree insurance surcharges (\$82,311 of which was applicable to the State ORP) and remitted these funds to the South Carolina Retiree Health Insurance Trust Fund.

The Fiduciary Net Position of each plan is required to be reserved in the following accounts:

The **Employer Fund** is credited with all employer and nonemployer retirement contributions and investment earnings of the Employee and Employer Funds. Upon retirement, all member account balances and contributions are transferred to the Employer Fund as all annuities and administrative expenses of the Systems are paid from this fund. Annual state appropriations to the SCNG are also credited to the Employer Fund to provide funding for the payment of annuities and administrative expenses.

The **Employee Fund** is credited with all contributions made by active members of the Systems. Interest is credited to each active member's individual account at an annual rate of 4 percent by transferring funds from the Employer Fund to the Employee Fund. At termination of employment prior to retirement, employee contributions and accumulated interest may be refunded from this fund to the member. At retirement, employee contributions and interest are transferred from the Employee Fund to the Employer Fund for subsequent payment of benefits.

The **Death Benefit Fund**, an incidental death program within SCRS and PORS, is the fund to which participating employers contribute for the purpose of providing a death benefit to active and retired

members of the Systems. Employer contributions and investment earnings are credited to this fund. Death benefit payments and administrative expenses are paid from this fund. The assets in the Death Benefits Fund are not held separately in a dedicated trust for the sole purpose of paying death benefits to beneficiaries of deceased members. These benefits are considered allowable within the defined benefit plans and are held within the pension trust funds.

The **Accidental Death Fund** (PORS only) is the fund to which participating employers contribute for the purpose of providing annuity benefits to beneficiaries of members of PORS killed in the actual performance of their duties. This fund and its benefits are independent of any other retirement benefit available to the beneficiary. Employer contributions and investment earnings are credited to this fund. Monthly survivor annuities and administrative expenses are paid from this fund.

The **Qualified Excess Benefit Arrangement (QEBA) Fund** is the fund from which annuity benefits are paid when a benefit recipient exceeds IRC Section 415(b) limits on the amount an individual may receive annually from a qualified defined benefit pension plan. Employer contributions are credited to this fund on an as-needed basis in an amount equivalent to the amount of funds necessary to pay benefits out of the QEBA fund due to IRC Section 415(b) limitations. Accordingly, the QEBA fund currently has no reserve balance.

Balances in the respective reserves at June 30, 2018, were as follows (amounts expressed in thousands):

	SCRS	PORS	GARS	JSRS	SCNG	Total
Employee Fund	\$ 8,501,051	\$ 1,104,572	\$ 7,066	\$ 28,259	\$ -	\$ 9,640,948
Employer Fund	17,786,456	3,356,790	26,328	131,777	28,327	21,329,678
Death Benefit Fund	127,409	46,224				173,633
Accidental Death Fund		62,845				62,845
QEBA Fund						-
Totals	\$ 26,414,916	\$ 4,570,431	\$ 33,394	\$ 160,036	\$ 28,327	\$ 31,207,104

III. Deposits and Investments

Deposit and Investment Risk Disclosures

The tables presented on Pages 37-40 include disclosures of credit and interest rate risk in accordance with Governmental Accounting Standards Board Statement 40 and are designed to inform financial statement users about investment risks which could affect the Systems' ability to meet its obligations. These tables classify investments by risk type, while the financial statements disclose investments by asset class. The table amounts were provided by the custodian bank and agree to the Statement of Fiduciary Net Position.

Custodial Credit Risk

Deposits

Custodial credit risk for deposits is the risk that in the event of a bank failure, the Systems' deposits may not be recovered. Deposits are insured by the Federal Deposit Insurance Corporation (FDIC) up to \$250,000; however, amounts in excess of \$250,000 are uninsured and uncollateralized. The Systems' do not have a formal policy with regards to Custodial credit risk for deposits. To monitor custodial credit risk, the credit quality of financial institutions at which deposits are held are periodically reviewed using internal analysis and rating agencies' reports.

The Systems' deposits at June 30, 2018, were as follows (amounts expressed in thousands):

	Carrying Amount
SCRS	\$129,727
PORS	13,601
GARS	157
JSRS	250
SCNG	127
Total	\$143,862

As of June 30, 2018, actual bank balances totaled \$148,745 thousand. Amounts in excess of \$250,000 were uninsured and uncollateralized.

As of June 30, 2018, cash held by the custodian, in broker and strategic partnerships accounts as well as forward contracts and foreign currencies totaled \$621.6 million. These balances are classified as cash and cash equivalents on the Statement of Fiduciary Net Position.

Investments

Custodial credit risk for investments is the risk that, in the event of a failure of the counterparty, the Systems will not be able to recover the value of the investments or collateral securities that are in the possession of an outside party. Investing for the Systems is governed by Section 16, Article X of the South Carolina Constitution and Section 9-1-1310(B) and Title 9 Section 16 of the South Carolina Code of Laws. Funds held in trust for the Retirement Systems may be invested and reinvested in a variety of instruments including, but not limited to, fixed income instruments of the United States, foreign fixed income obligations, swaps, forward contracts, futures and options, domestic and international equity securities, private equity, real estate, and fund of funds.

The following table presents the fair value of investments as of June 30, 2018:

Statement of Invested Assets

June 30, 2018

(Amounts expressed in thousands)

Investment Type	Fair Value	Investment Type	Fair Value
Short Term Investments		Fixed Income Allocation	
Short Term Investment Funds (U.S. Regulated)	\$ 1,144,204	U.S. Government	
Certificates of Deposit	29,177	U.S. Government Treasuries ¹	\$ 188,315
Commercial Paper	550,063	U.S. Government Agencies	837,064
Discount Notes	5,792	Mortgage Backed	
U. S. Treasury Bills	246,693	Government National Mortgage Association	44,034
Non U. S. Government Short Term	8,261	Federal National Mortgage Association	43,796
Corporate Bonds	6,662	Federal Home Loan Mortgage Association	2,344
Strategic Partnership Short Duration	186,061	Federal Home Loan Mortgage Association (Multiclass)	13,771
Options - Cash	1,397	Collateralized Mortgage Obligations	15,329
Futures - Cash	545	Municipals	39,207
Total Short Term Investments	<u>\$ 2,178,855</u>	Corporate	
Equity Allocation		Corporate Bonds	1,761,577
Global Public Equity²		Mixed Credit	16,685
Common Stocks	\$ 9,023,685	Asset Backed Securities	319,022
Real Estate Investment Trusts	998,445	Private Placements	853,318
Preferred	9,567	Yankee Bonds	625
Convertible Preferred	1,307	Emerging Debt	1,149,641
Options - Equity	804,428	Options - Fixed Income	(158)
Futures - Equity	(33,686)	Futures - Fixed Income	2,809
Swaps - Equity	(25,775)	Swaps - Fixed Income	(211)
Total Global Public Equity	<u>\$ 10,777,971</u>	Total Fixed Income	<u>\$ 5,287,168</u>
Global Tactical Asset Allocation			
Commingled Funds Balanced	\$ 3,092,930		
Total Global Tactical Asset Allocation	<u>\$ 3,092,930</u>		
Alternatives			
Hedge Funds	\$ 3,333,496		
Private Equity Limited Partnerships	2,367,353		
Private Debt	1,892,516		
Real Estate	1,906,157		
Total Alternative Investments	<u>\$ 9,499,522</u>		
Total Invested Assets	<u>\$ 30,836,446</u>		
Invested Securities Lending Collateral	\$ 34,612		

Reconciliation of Statement of Invested Assets (listed above) to the Statement of Fiduciary Net Position

Total Invested Assets	\$ 30,836,446
Short Term Investments classified as Cash & Cash Equivalents on Statement of Fiduciary Net Position	
Short Term Investment Funds (U.S. Regulated)	(1,144,204)
Commercial Paper	(426,228)
Discount Notes	(5,792)
Non U. S. Government Short Term	(8,261)
Corporate Bonds	(6,156)
Options - Cash	(1,397)
Futures - Cash	(545)
Total Investments on Statement of Fiduciary Net Position	<u>\$ 29,243,863</u>

¹ U.S. Government Treasuries includes Notes, Bonds, and Treasury Inflation Protected Securities (TIPS).

² RSIC's Public Equity benchmark as of 6/30/2018 is the MSCI All Country World Investable Market Index. The Benchmark is comprised of 53.30% MSCI US Equity, 35.36% MSCI EAFE + CAD, and 11.34% MSCI EM Equity. As of June 30, 2018, RSIC had a NAV of \$4,959,087,416 in Global Equity managers that invest to the MSCI World. The MSCI World is comprised of 60.68% MSCI US and 39.32% MSCI EAFE + CAD.

Fair Value Measurements

The Systems categorize fair value measurements within the fair value hierarchy established by GASB Statement No. 72, *Fair Value Measurement and Application*. The valuation technique uses a three level hierarchy of inputs to measure the fair value of the asset and gives the highest priority to unadjusted quoted prices in active markets (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements). These classifications are summarized as follows:

Level 1 Inputs: Quoted prices (unadjusted) for identical assets or liabilities in active markets that a reporting entity can access at the measurement date.

Level 2 Inputs: Inputs other than quoted prices included within Level 1 that are observable for an asset or liability, either directly or indirectly.

Level 3 Inputs: Unobservable inputs for an asset or liability.

In the event that inputs used to measure the fair value of an asset or liability fall into different levels in the fair value hierarchy, the overall level of the fair value hierarchy in its entirety is determined based on the lowest level input that is significant to the entire valuation. These levels are not necessarily an indication of risk but are based upon the pricing transparency of the investment. In determining the appropriate levels, the Systems performed a detailed analysis of the assets and liabilities that are subject to GASB Statement No. 72.

Fair value of certain investments that do not have a readily determinable fair value is established using net asset value (or its equivalent) as a practical expedient. These investments are not categorized according to the fair value hierarchy.

Investments classified according to the fair value hierarchy are valued according to the pricing policy established by the Plan's custodian bank. Pricing is based primarily on prices from several third-party vendors or other specified alternative sources which are considered to be reliable. Where available, the custodian bank uses more than one vendor for securities of each asset type, class or issue. The price received from a primary source is used in valuation unless a tolerance check, or price challenge, results in the use of a price from a secondary vendor. The Systems may override prices provided by the custodian bank if it is deemed necessary or appropriate.

The Systems have the following recurring fair value measurements as of June 30, 2018 (amounts in thousands):

Investments by Fair Value Level	At 6/30/2018	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Short Term Investments				
Short Term Investment Funds (U. S. Regulated)	\$ 1,144,204	\$ 1,144,204	\$ -	\$ -
Certificates of Deposit	29,177		29,177	
Commercial Paper	550,063		550,063	
Discount Notes	5,792		5,792	
U. S. Treasury Bills	246,693	246,693		
Non U. S. Government Short Term	8,261		8,261	
Corporate Bonds	6,662		6,662	
Total Short Term Investments	\$ 1,990,852	\$ 1,390,897	\$ 599,955	\$ -
Equity Allocation				
Global Public Equity				
Common Stocks	\$ 4,675,871	\$ 4,675,871	\$ -	\$ -
Real Estate Investment Trusts	998,445	998,445		
Preferred	9,567	2,470	7,097	
Convertible Preferred	1,307		1,307	
Total Global Public Equity	\$ 5,685,190	\$ 5,676,786	\$ 8,404	\$ -
Fixed Income Allocation				
U. S. Government				
U.S. Government Treasuries	\$ 188,315	\$ 188,315	\$ -	\$ -
U.S. Government Agencies	837,064		837,064	
Mortgage Backed				
Government National Mortgage Association	44,034		44,034	
Federal National Mortgage Association	43,796		43,796	
Federal Home Loan Mortgage Association	2,344		2,344	
Federal Home Loan Mortgage Association (Multiclass)	13,771		13,771	
Collateralized Mortgage Obligations	15,329		15,329	
Municipals	39,207		39,207	
Corporate				
Corporate Bonds	1,761,577		1,336,710	424,867
Asset Backed Securities	319,022		319,022	
Private Placements	853,318		853,318	
Yankee Bonds	625		625	
Total Fixed Income	\$ 4,118,402	\$ 188,315	\$ 3,505,220	\$ 424,867
Total Investments by Fair Value Level	\$ 11,794,444	\$ 7,255,998	\$ 4,113,579	\$ 424,867
Investments measured at the net asset value (NAV)				
Strategic Partnership Short Duration	\$ 186,061			
Global Equity	5,170,346			
Global Tactical Asset Allocation	3,092,930			
Mixed Credit	16,685			
Emerging Debt	1,149,641			
Hedge Funds	3,333,496			
Private Equity	2,367,353			
Private Debt	1,892,516			
Real Estate	1,906,157			
Total investments measured at the NAV	\$ 19,115,185			
Total investments measured at fair value	\$ 30,909,629			
Investment derivative instruments				
Short Term Investments				
Options - Cash	\$ 1,397	\$ 1,774	\$ (377)	\$ -
Futures - Cash	545	545		
Equity Investments				
Options - Equity	(18,104)	27	(18,131)	
Futures - Equity	(33,686)	(33,686)		
Swaps - Equity	(25,775)		(25,775)	
Fixed Income Investments				
Options - Fixed Income	(158)	(49)	(109)	
Futures - Fixed Income	2,809	2,809		
Swaps - Fixed Income	(211)		(211)	
Total investment derivative instruments	\$ (73,183)	\$ (28,580)	\$ (44,603)	\$ -
Total Invested Assets	\$ 30,836,446			

Investments Measured at the Net Asset Value (NAV):

	Fair Value	Unfunded Commitments ¹	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Strategic Partnership Short Duration	\$ 186,061	\$ -	Monthly	5 - 10 days
Global Equity	5,170,346		Daily/Monthly	5 - 30 days
Global Tactical Asset Allocation	3,092,930		Monthly/Quarterly	5 - 14 days
Mixed Credit	16,685		Monthly	5 - 30 days
Emerging Debt	1,149,641		Daily/Monthly	10 - 15 days
Hedge Funds	3,333,496		Monthly/Quarterly	2 - 90 days
Private Equity	2,367,353	1,090,568	Illiquid	Illiquid
Private Debt	1,892,516	1,585,383	Illiquid	Illiquid
Real Estate	1,906,157	789,987	Illiquid	Illiquid
Infrastructure ²		145,937	Illiquid	Illiquid
Total investments measured at the NAV	\$ 19,115,185			

¹ For purposes of this table, amounts are reported in thousands in US Dollars. The Private Equity Category includes €184,895,000 and AUD \$55,599,000 that have been converted to USD. The Infrastructure category includes €125,000,000 that has been converted to USD.

² At 6/30/18 no capital has been called for the Infrastructure fund.

Strategic Partnership Short Duration Funds. This investment type contains one fund that invests primarily in short duration debt instruments which generally have a one to three-year maturity. The fair values of the investments have been determined using the percent ownership of the NAV of the fund and reported by the Investment Manager. Redemptions are generally allowed monthly, provided adequate notice.

Global Equity Funds. This investment type includes 11 funds that invest primarily in global developed and emerging equity public markets instruments. One of the funds invests in an equity options strategy. The fair values of the investments in this asset type have been determined using NAV per share of the investments or percent ownership of the NAV of the fund and reported by the Investment Managers. Redemptions are generally allowed monthly, provided adequate notice.

Global Tactical Asset Allocation Funds. This investment type includes five funds that may be invested in liquid securities and instruments including, but not limited to equities, fixed income securities, bank loans, commodities, futures, swaps, forwards, options and currencies. The fair values of the investments in this asset type have been determined using NAV per share of the investments or percent ownership of the NAV of the fund and reported by the Investment Managers. Redemptions are allowed monthly, provided adequate notice, except for one fund that may require a longer redemption timeframe and may be subject to gates and/or lock-ups.

Mixed Credit Funds. This investment type includes one fund that generally invests in high yield, bank loan and structured credit instruments. The fair values of the investments in this asset type have been determined using NAV per share of the investments or percent ownership of the NAV of the fund and reported by the Investment Manager. Redemptions are generally allowed monthly, provided adequate notice.

Emerging Debt Funds. This investment type includes four funds that generally invest in debt securities issued in any currency and may hold foreign currency. The fair values of the investments in this asset type have been determined using NAV per share of the investments or percent ownership of the NAV of the fund and reported by the Investment Managers. Redemptions are generally allowed monthly, provided adequate notice, and one fund charges a redemption fee.

Hedge Funds. This investment type includes 14 funds that generally invest in hedge fund strategies that seek alpha in equity or credit markets or seek to minimize embedded market beta. There are 6 of these funds invested through strategic partnership investments which may consist of underlying investments in more than one hedge fund. The fair values of the investments in this asset type have been determined using NAV per share of the investments or percent ownership of the NAV of the fund and reported by the Investment Managers. Redemptions are generally allowed monthly, provided adequate notice; however, it is common that funds have authority to require longer redemption timeframes and/or make the redemption subject to gates to mitigate any detrimental impact to the fund.

Private Equity Funds. This investment type includes 44 funds that consist of investments in limited partnerships or co-investments and five funds within strategic partnership investments. Strategic partnerships may consist of underlying investments in more than one limited partnership or co-investment fund. The private equity investments span the venture capital, growth equity, fund of funds, secondaries, energy and buyout strategies. Private equity is considered an illiquid investment strategy as funds generally have a life span of seven to 10 years. The nature of investments in this asset type is that distributions are received through the liquidation of the underlying assets of the fund. The fair values of the investments in this asset type are valued in good faith based upon the most recent financial information available for the underlying companies. These are reported by the Investment Managers at the measurement date, adjusted for subsequent cash flow activities through the year-end reporting date. The estimated fair value of these investments may differ from values that would have been used had a ready market existed.

Private Debt Funds. This investment type includes 25 funds that consist of investments in limited partnerships and 5 funds that are strategic partnership investments. Strategic partnerships may consist of underlying investments in more than one limited partnership or co-investment fund. The private debt investments span the direct lending, distressed, energy, mezzanine, mortgages, opportunistic and other strategies. Private Debt is considered an illiquid investment strategy as funds generally have a life span of seven to 10 years. The nature of investments in this asset type is that distributions are received through investment generated income and the liquidation of the underlying assets of the fund. The fair values of the investments in this asset type are valued in good faith based upon the most recent financial information available for the underlying companies. These are reported by the Investment Managers at the measurement date, adjusted for subsequent cash flow activities through the year-end reporting date. The estimated fair value of these investments may differ from values that would have been used had a ready market existed.

Real Estate Funds. This investment type includes 28 funds that consist of investments in limited partnerships or co-investments and four funds that are strategic partnership investments. Strategic partnerships may consist of underlying investments in more than one limited partnership or co-investment fund. The real estate investments span the core, diversified, real estate debt, timber, value add and opportunistic strategies. Real Estate is considered an illiquid investment strategy as funds generally have a life span of seven to 10 years. The nature of investments in this asset type is that distributions are received through investment generated income and the liquidation of the underlying assets of the fund. The fair values of the investments in this asset type are valued in good faith based upon the most recent financial information available for the underlying companies. These are reported by the Investment Managers at the measurement date, adjusted for subsequent cash flow activities through the year-end reporting date. The estimated fair value of these investments may differ from values that would have been used had a ready market existed.

Infrastructure Funds. This investment type includes one fund that has been subscribed to but has not yet called capital. Common types of infrastructure investments are in transportation, energy, telecommunications, water supply, sewage, or hospitals. These assets tend to benefit from a rising inflation environment. Infrastructure is considered an illiquid investment strategy as funds generally have a life span of 20 years. The nature of investments in this asset type is that distributions are received through investment generated income and the liquidation of the underlying assets of the fund. The fair values of the investments in this asset type are valued in good faith based upon the most recent financial information available for the underlying companies. These are reported by the Investment Managers at the measurement date, adjusted for subsequent cash flow activities through the year-end reporting date. The estimated fair value of these investments may differ from values that would have been used had a ready market existed.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. While the RSIC has no formal interest rate risk policy, interest rate risk is observed within the portfolio using effective duration (option adjusted duration), which is a measure of the price sensitivity of a bond or a portfolio of bonds to interest rate movements given a 100 basis point change in interest rates. Effective duration takes into account that expected cash flows will fluctuate as interest rates change and provides a measure of risk that changes proportionately with market rates. Investment guidelines may specify the degree of interest rate risk taken versus the benchmark within each fixed income portfolio. Disclosures for interest rate risk at June 30, 2018, are noted below (amounts expressed in thousands).

Investment Type	Fair Value Total	Fair Value Duration Not Available	Fair Value Duration Available	Effective Duration (option adjusted duration)
Short Term Investments				
Short Term Investment Funds (U.S. Regulated)	\$ 1,144,204		\$ 1,144,204	0.08
Invested Securities Lending Collateral	34,612		34,612	0.01
Certificates of Deposit	29,177		29,177	0.05
Commercial Paper	550,063	3,950	546,113	0.08
Discount Notes	5,792		5,792	0.08
U. S. Treasury Bills	246,693		246,693	0.29
Non U. S. Government Short Term	8,261		8,261	0.07
Corporate Bonds	6,662		6,662	0.05
Strategic Partnership Short Duration	186,061		186,061	0.13
Options - Cash	1,397	1,464	(67)	0.24
Futures - Cash	545		545	1.14
Total Short Term Investments	2,213,467	5,414	2,208,053	
Equity Allocation				
Preferred	9,567	6,749	2,818	3.31
Convertible Preferred	1,307		1,307	0.04
Total Equity Investments	10,874	6,749	4,125	
Fixed Income Allocation				
U. S. Government				
U.S. Government Treasuries	188,315		188,315	7.54
U. S. Government Agencies	837,064		837,064	2.84
Mortgage Backed				
Government National Mortgage Association	44,034	5,132	38,902	5.27
Federal National Mortgage Association	43,796		43,796	4.99
Federal Home Loan Mortgage Corporation	2,344		2,344	6.28
Federal Home Loan Mortgage Association (FHLMC Multiclass)	13,771		13,771	9.15
Collateralized Mortgage Obligations	15,329		15,329	9.92
Municipals	39,207	30,825	8,382	4.59
Corporate				
Corporate Bonds	1,761,577	69,367	1,692,210	2.05
Mixed Credit	16,685		16,685	0.02
Asset Backed Securities	319,022	27,952	291,070	0.65
Private Placements	853,318	86,781	766,537	1.10
Yankee Bonds	625		625	1.59
Emerging Debt	1,149,641		1,149,641	5.65
Options - Fixed Income	(158)	(51)	(107)	(113.90)
Futures - Fixed Income	2,809	(308)	3,117	1.81
Swaps - Fixed Income	(211)	(2,920)	2,709	10.16
Total Fixed Income	\$ 5,287,168	\$ 216,778	\$ 5,070,390	
Mixed Credit Hedge Fund Allocation				
Mixed Credit Hedge Funds	52,287		52,287	(0.06)
Total Mixed Credit Hedge Funds	\$ 52,287	\$ -	\$ 52,287	
Total Invested Assets	\$ 7,563,796	\$ 228,941	\$ 7,334,855	
Total Portfolio Effective Duration (option adjusted duration)				2.16

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to the holders of its securities. Each individual portfolio within fixed income is managed in accordance with investment guidelines that are specific as to permissible credit quality ranges, exposure levels within individual quality tiers and average credit quality. Within high yield portfolios, a quality rating of lower than C is not permissible in any of the fixed income guidelines except in those circumstances of downgrades subsequent to purchase, in which case the investment manager is responsible for communicating the downgrade to the Commission's consultant and staff. The Systems' fixed income investments at June 30, 2018, were rated by Moody's and are presented below (amounts expressed in thousands).

Credit Risk

June 30, 2018

(Amounts expressed in thousands)

Investment Type and Fair Value	AAA	AA	A	BAA	BA
Short Term Investments					
Short Term Investment Funds (U. S. Regulated)	\$ 1,144,204	\$ -	\$ -	\$ -	\$ -
Invested Securities Lending Collateral					
Certificates of Deposit					
Commercial Paper		257,202		271,893	
Discount Notes	5,792				
Non U. S. Government Short Term					
Corporate Bonds		2,052	4,104		
Strategic Partnership Short Duration					
Options - Cash					
Futures - Cash					
Equity Investments					
Preferred				1,379	1,439
Convertible Preferred				1,307	
Fixed Income Allocation²					
Mortgage Backed:					
Federal National Mortgage Association	43,796				
Federal Home Loan Mortgage Association	2,344				
Federal Home Loan Mortgage Association (Multiclass)	13,771				
Collateralized Mortgage Association	15,329				
Municipals	630		12,900		
Corporate:					
Corporate Bonds	66,597	168,553	369,673	249,489	206,022
Mixed Credit					
Asset Backed Securities	70,243	2,188	8,958	29,404	99,681
Private Placements	68,390	125,371	157,504	60,067	60,961
Yankee Bonds					625
Emerging Debt					
Options - Fixed Income					
Futures - Fixed Income					
Swaps - Fixed Income					
Totals	\$ 1,431,096	\$ 555,366	\$ 553,139	\$ 613,539	\$ 368,728

Chart continued on Page 39

¹The column labeled Not Rated by S&P or Moody's represents securities that were either not rated or had a withdrawn rating.

²U.S. Treasury Bills, Notes and Bonds, Agencies and Government National Mortgage Association securities with a fair value of \$1.03 billion are not included because they are not subject to credit risk.

Credit Risk

Not Rated							
B	CAA	CA	C	Int'l and EMD Commingled Funds or held in Strategic Partnerships	Rated by S&P; not by Moody's	Not rated by S&P or Moody's ¹	TOTAL
							\$ 1,144,204
						34,612	34,612
						29,177	29,177
						20,968	550,063
							5,792
						8,261	8,261
					506		6,662
				186,061			186,061
						1,397	1,397
						545	545
						6,749	9,567
							1,307
							43,796
							2,344
							13,771
							15,329
					7,752	17,925	39,207
231,609	44,012	8,146	12,866		243,470	161,140	1,761,577
						16,685	16,685
19,738	12,162	14,385			60,913	1,350	319,022
64,879	34,807	2,036			190,258	89,045	853,318
							625
				1,149,641			1,149,641
						(158)	(158)
						2,809	2,809
						(211)	(211)
\$ 316,226	\$ 90,981	\$ 24,567	\$ 12,866	\$ 1,335,702	\$ 502,899	\$ 390,294	\$ 6,195,403

Concentration of Credit Risk – Investments

Concentration of credit risk is the risk of loss attributed to the magnitude of investment in a single issuer. The Systems’ policy for reducing this risk is to comply with the Statement of Investment Objectives and Policies as amended and adopted by the Commission which states that “except that no limitations on issues and issuers shall apply to obligations of the U.S. Government and Federal Agencies, the domestic fixed income portfolio shall contain no more than 6 percent exposure to any single issuer.” As of June 30, 2018, there is no single issuer exposure within the portfolio that comprises

5 percent or more of the overall portfolio. Therefore, there is no concentration of credit risk.

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. The Systems participates in foreign markets to diversify assets, reduce risk and enhance returns. Currency forwards are used to manage currency fluctuations and are permitted by investment policy. Policy forbids speculating in forwards and other derivatives.

The table below presents the Systems’ exposure to foreign currency risk in U.S. dollars at June 30, 2018, (amounts expressed in thousands):

Currency	Cash & Cash Equivalents	Forward Contracts	Futures Contracts	Private Equity	Preferred Securities	Fixed Income	Equity	Total
Australian Dollar	\$ 2,096	\$ 29,327	\$ 26	\$ 39,740	\$ -	\$ 3,198	\$ 126,130	\$ 200,517
Canadian Dollar	10,474	35,534	405			205	235,139	281,757
Czech Koruna		43						43
Danish Krone	141	(10,987)				11,238	36,836	37,228
Euro Currency	18	54,677	(5,126)	186,379	2,470	188,588	556,195	983,201
Hong Kong Dollar	(1,756)	22,078	(2)				75,325	95,645
Hungarian Forint	8,261	(8,273)						(12)
Israeli Shekel	18	(4,218)				4,227	5,579	5,606
Japanese Yen	2,615	106,825	(2,997)			(450)	402,466	508,459
Mexican Peso	326	1,311					3,606	5,243
New Zealand Dollar	55						6,473	6,528
Norwegian Krone	456	(549)					38,441	38,348
Pound Sterling	5,243	71,070	(671)			10,743	294,015	380,400
Russian Ruble (New)		(288)						(288)
Singapore Dollar	407						19,619	20,026
South African Rand		118						118
Swedish Krona	732	22,129	(20)				48,340	71,181
Swiss Franc	246	137					102,130	102,513
Totals	\$ 29,332	\$ 318,934	\$ (8,385)	\$ 226,119	\$ 2,470	\$ 217,749	\$ 1,950,294	\$ 2,736,513

Derivatives

Derivatives are financial instruments for which the value is derived from underlying assets or data. All of the Systems’ derivatives are considered investments. Excluding futures, derivatives generally take the form of contracts in which two parties agree to make payments at a later date based on the value of specific assets or indices. Through certain collective trust funds, the Systems may invest in various derivative financial instruments such as futures and options thereon;

forward foreign currency contracts, options, interest rate, currency, equity, index, credit default, total return swaps, interest-only strips, and CMOs to enhance the performance and reduce volatility. To comply with the requirements of multiple exchanges, cash and securities in the amount of \$192.1 and \$288.9 million, respectively, were held in trust by the clearing brokers on June 30, 2018. The Systems’ derivatives, consisting of futures, options, forward contracts and swaps are presented in the tables on Pages 41-46. Investments in limited

partnerships and commingled funds may include derivatives that are not shown in the derivative totals.

Derivatives directly managed by the Investment Commission are used primarily to facilitate changes to the asset allocation of the total plan and for their low cost of implementation. The Commission uses derivatives for several reasons:

- **Asset Allocation:** In many cases, synthetic exposures (using derivatives) are placeholders until managers are hired and funded. In time, the Commission may substitute traditional managers for much of the synthetic exposure currently in the

portfolio. Efficient Market Theory dictates that in some asset classes, synthetics are the best way to achieve exposure.

- **Risk Management:** Derivatives allow investors the ability to swiftly and efficiently increase or decrease exposures in order to manage portfolio risk.
- **Cost:** A synthetic (derivative) solution is often the least expensive way to gain exposure to an asset class or to manage portfolio risk. Derivatives are more beneficial in each of the three major measures of cost: commission costs, market impact of trading and opportunity costs.

Futures

Futures are contractual obligations that require the buyer (seller) to buy (sell) assets at a predetermined date at a predetermined price. These contracts are standardized and trade on an organized exchange with gains and losses settled daily thereby significantly reducing credit and default risk. Gains and losses are included in the net appreciation/ (depreciation) in the fair value of investments total of the Statement of Changes in Fiduciary Net Position.

The tables below present classification information on the Systems' derivatives at June 30, 2018, (amounts expressed in thousands):

Changes in Fair Value				
	Classification	Gain/(Loss)		
Futures Contracts	Net appreciation/(depreciation)	\$	(4,385)	
Forward Contracts	Net appreciation/(depreciation)		(1,039)	
Swaps	Net appreciation/(depreciation)		(23,751)	

Fair Value				
	Forward Contracts	Futures	Options	Swaps
Cash and Cash Equivalents	\$ (8,061)	\$ 545	\$ 1,397	\$ -
Fixed Income		2,809	(158)	(211)
Equity		(33,686)	804,428	(25,775)
Totals	<u>\$ (8,061)</u>	<u>\$ (30,332)</u>	<u>\$ 805,667</u>	<u>\$ (25,986)</u>

At June 30, 2018, the Systems had the following exposure via futures contracts (dollar amounts expressed in thousands):

Futures Contracts	Expiration	Long/Short	Quantity	Notional Value¹
90DAY EURO\$ FUTURE (CME)	EXP DEC 19	Short	(50)	\$ (12,129)
90DAY EURO\$ FUTURE (CME)	EXP DEC 20	Short	(86)	(20,859)
90DAY EURO\$ FUTURE (CME)	EXP SEP 20	Short	(138)	(33,474)
90DAY EURO\$ FUTURE (CME)	EXP JUN 20	Short	(316)	(76,646)
90DAY EURO\$ FUTURE (CME)	EXP MAR 20	Short	(209)	(50,693)
Total Cash & Cash Equivalents				(193,801)
OMXS30 IND FUTURE (SSE)	EXP JUL 18	Long	703	12,267
FTSE 100 INDEX FUTURE (ICF)	EXP SEP 18	Long	845	84,803
TOPIX INDEX FUTURE (OSE)	EXP SEP 18	Long	750	117,174
HANG SENG INDEX FUTURE (HKG)	EXP JUL 18	Long	112	20,504
AMSTERDAM INDEX FUTURE (EOE)	EXP JUL 18	Long	146	18,805
FTSE/MIB INDEX FUTURE (MIL)	EXP SEP 18	Long	110	13,850
CAC40 10 EURO FUTURE (EOP)	EXP JUL 18	Long	908	56,405
IBEX 35 INDEX FUTURE (MFM)	EXP JUL 18	Long	136	15,246
EURO STOXX 50 FUTURE (EUX)	EXP SEP 18	Long	1,291	51,113
DAX INDEX FUTURE (EUX)	EXP SEP 18	Long	131	47,064
S&P/TSX 60 INDEX FUTURE (MSE)	EXP SEP 18	Long	310	45,403
SPI 200 FUTURE (SFE)	EXP SEP 18	Long	298	33,841
S & P 500 EMINI INDEX FUT (CME)	EXP SEP 18	Long	14,628	1,990,578
Total Equity				2,507,053
EURO-OAT FUTURE (EUX)	EXP SEP 18	Short	(239)	(43,124)
JPN 10YR BOND FUTURE (OSE)	EXP SEP 18	Short	(4)	(5,447)
EURO BUXL 30Y BND FUTURE (EUX)	EXP SEP 18	Short	(39)	(8,091)
EURO-BUND FUTURE (EUX)	EXP SEP 18	Short	(34)	(6,453)
CANADA 10YR BOND FUTURE (MSE)	EXP SEP 18	Short	(7)	(727)
AUST 10Y BOND FUTURE (SFE)	EXP SEP 18	Short	(241)	(23,035)
US LONG BOND FUTURE (CBT)	EXP SEP 18	Short	(251)	(36,395)
US LONG BOND FUTURE (CBT)	EXP SEP 18	Long	25	3,625
US 2YR TREAS NTS FUT (CBT)	EXP SEP 18	Long	2,962	627,435
US 5YR TREAS NTS FUTURE (CBT)	EXP SEP 18	Long	3,866	439,244
US 10YR NOTE FUTURE (CBT)	EXP SEP 18	Long	1,924	231,241
US 5YR TREAS NTS FUTURE (CBT)	EXP SEP 18	Long	740	84,077
US 10YR NOTE FUTURE (CBT)	EXP SEP 18	Long	741	89,059
US 5YR TREAS NTS FUTURE (CBT)	EXP SEP 18	Short	(218)	(24,769)
US 10YR ULTRA FUTURE (CBT)	EXP SEP 18	Short	(34)	(4,360)
Total Fixed Income				1,322,280
Total				\$ 3,635,532

¹ Notional value is the nominal or face amount that is used to calculate payments made on derivative instruments (futures, forwards, swaps and options). This amount generally does not change hands and is thus referred to as notional. The notional amount represents the economic equivalent to an investment in the physical securities represented by the derivative contract.

Forwards

Forwards are contractual obligations that require the delivery of assets at a fixed price on a predetermined date. These contracts are “over-the-counter” (OTC) instruments, meaning they are not traded on an organized exchange. Currency forwards gains and losses are included in the net

appreciation/(depreciation) in the fair value of investments total of the Statement of Changes in Fiduciary Net Position.

At June 30, 2018, the Systems had the following forward exposures, listed by counterparty (amounts expressed in thousands):

Broker	Notional Value	Fair Value	Counterparty Exposure
Bank of America	\$ 43,151	\$ 131	2.28%
Bank of Montreal	175,677	(2,272)	9.27%
BNP Paribas	14,116	(131)	0.74%
BNY Mellon	240,546	777	12.70%
Brown Brothers Harriman	14,819	(3)	0.78%
Citibank NA	50,749	9	2.68%
Citigroup Global Markets	364	(1)	0.01%
Commonwealth Bank of Australia	175,638	(2,233)	9.27%
Credit Agricole	128	(10)	0.01%
Credit Suisse International London	1,365	1	0.07%
Goldman Sachs	80,853	915	4.27%
HSBC Bank	16,816	24	0.89%
JP Morgan Chase Bank	89,060	1,754	4.70%
Merrill Lynch International	56	(2)	0.00%
Morgan Stanley	10,299	342	0.54%
Natwest Markets	781	49	0.04%
Royal Bank of Canada	425,129	(2,284)	22.44%
Standard Chartered Bank London	17,047	(447)	0.90%
State Street Boston Capital Market	152,994	(184)	8.08%
Toronto Dominion	2,964	(58)	0.16%
UBS AG/Stamford CT	206,451	(2,280)	10.90%
Westpac Banking Corp	175,563	(2,158)	9.27%
Totals	\$ 1,894,566	\$ (8,061)	100%

Swaps

The Systems has entered into various swap agreements to manage plan exposure. Swaps are OTC agreements to exchange a series of cash flows according to specified terms. The underlying asset can be an interest rate, an exchange rate, a commodity price or any other index.

Total return swaps are primarily used to efficiently achieve a target asset allocation. Exposures to an asset class are typically gained by paying a reference rate such as LIBOR, plus or minus a spread, in exchange for the risk and returns of a desired market index. Similarly, exposures can be reduced by receiving a reference rate in exchange for the economic risks and returns of an index.

Counterparty risk, or default risk, is the risk that a party will not honor its contractual obligations. The Systems seeks to actively manage its counterparty risk by thorough analysis and evaluation of all potential counterparties by investment staff and the independent overlay manager. Risk is further minimized through diversification among counterparties with high credit ratings and collateralizing unrealized gains and losses. The Systems currently does not participate in a master netting agreement. Unrealized gains and losses are not netted across instrument types and are included in the net appreciation/(depreciation) in the fair value of investments total of the Statement of Changes in Fiduciary Net Position. The table below reflects the counterparty credit ratings at June 30, 2018, for currency forwards, swap agreements, and options (amounts in thousands):

Quality rating	Forwards	Swaps	Options ¹	Total
Aa2	\$ (1,529)	\$ -	\$ -	\$ (1,529)
Aa3	(5,100)	(22,991)	(226)	(28,317)
A1	(1,817)	(2,763)	(91)	(4,671)
A2	(1)	(4,175)		(4,176)
A3	(2)			(2)
Baa2	49		(109)	(60)
Not rated by Moody's; rated A+ by Fitch	339		37	376
Total subject to credit risk	\$ (8,061)	\$ (29,929)	\$ (389)	\$ (38,379)
Centrally cleared:				
Chicago Board Options Exchange	\$ -	\$ -	\$ (16,476)	\$ (16,476)
Chicago Mercantile Exchange		492		492
Intercontinental Exchange		1,512		1,512
LCH Ltd		1,939		1,939
Total not subject to credit risk	\$ -	\$ 3,943	\$ (16,476)	\$ (12,533)
Totals	\$ (8,061)	\$ (25,986)	\$ (16,865)	\$ (50,912)

¹ Options held in commingled accounts are not included in this table.

At June 30, 2018, the Systems held swaps as shown in the tables below (amounts expressed in thousands):

Counterparty	Total Return Swaps	SCRS Pays	SCRS Receives	Maturity Date	Current Notional	Fair Value ¹	Gain/Loss Since Trade
Bank of America	Russell 2000 Proxy	Russell 2000 Index Total Return	ICE LIBOR USD 3M - 30 bps	9/28/2018	\$ (273,449)	\$ (18,326)	\$ (18,325)
Barclays	Barclays US Agg Proxy	ICE LIBOR USD 1M + 24 bps	LBUSTRUU Index	1/31/2019	347,116	(1,093)	(4,619)
Barclays	Barclays US Securitized Proxy	ICE LIBOR USD 1M + 15 bps	LD19TRUU Index	7/31/2018	129,575	(200)	(2,273)
Barclays	Barclays US Corporate Proxy	ICE LIBOR USD 1M + 25 bps	LUACTRUU Index	7/31/2018	98,452	(772)	(3,571)
Barclays	Barclays US Agg Proxy	ICE LIBOR USD 1M + 26 bps	LBUSTRUU Index	2/28/2019	355,788	(1,152)	(892)
Barclays	Barclays US Agg Proxy	ICE LIBOR USD 1M + 27 bps	LBUSTRUU Index	9/28/2018	296,294	(966)	(7,975)
Goldman Sachs	MSCI World Swap Proxy	ICE LIBOR USD 3M	NDDUWI Index	7/31/2018	541,492	894	(30,972)
Goldman Sachs	Russell 2500 Growth Proxy	ICE LIBOR USD 3M + 29 bps	Russell 2500 Growth Index	11/30/2018	141,914	(3,651)	11,900
JP Morgan	Russell 2000 Proxy	Russell 2000 Index Total Return	ICE LIBOR USD 3M - 23 bps	10/31/2018	(72,662)	(4,692)	(4,692)
					<u>\$ 1,564,520</u>	<u>\$ (29,958)</u>	<u>\$ (61,419)</u>

Counterparty	Fixed Income Swaps	SCRS Pays	SCRS Receives	Maturity Date	Current Notional	Fair Value ¹
Bank of America	Credit Default Swaps	Fixed/Variable	Fixed/Variable	various	\$ 2,450	\$ 19
Barclays	Credit Default Swaps	Fixed Rate	Variable Rate	12/20/2023	400	8
Credit Suisse	Credit Default Swaps	Variable Rate	Fixed Rate	9/17/2058	12,500	(6)
HSBC Securities	Credit Default Swaps	Variable Rate	Fixed Rate	6/20/2021	1,200	9
JP Morgan	Credit Default Swaps	Variable Rate	Fixed Rate	9/17/2058	2,200	(1)
					<u>\$ 18,750</u>	<u>\$ 29</u>
Chicago Mercantile Exchange	Cleared Interest Rate Swaps	Fixed Rate	Variable Rate	various	\$ 303,318	\$ 492
Intercontinental Exchange	Cleared Credit Default Swaps	Variable Rate	Fixed Rate	various	99,600	1,512
LCH.Ltd	Cleared Interest Rate Swaps	Fixed/Variable	Fixed/Variable	various	149,658	1,939
					<u>\$ 552,576</u>	<u>\$ 3,943</u>

¹Fair Value is the amount reasonably expected to be received if the underlying positions were liquidated on the following business day.

Options

Options are exchange traded agreements between two parties for a future transaction on an underlying asset at a reference or strike price. The buyer of an option has the right, but not the obligation, to transact. The seller of an option has the obligation to transact if forced by the buyer. The price of an option is derived by taking the difference in the underlying asset and the strike price plus a premium for the remaining time until expiration. At June 30, 2018, the Systems had the following option positions (amounts expressed in thousands):

Option Contracts	Underlying Security	Expiration	Quantity	Fair Value ¹
Put Dec 19 097.000 ED 12/16/19	90DAY EURODOLLAR FUTURE DEC 19	December 2019	(1,083)	\$ (663)
Put Dec 19 097.625 ED 12/16/19	90DAY EURODOLLAR FUT DEC 19	December 2019	1,083	1,841
Put Dec 18 097.625 ED 12/17/18	90DAY EURODOLLAR FUTURE DEC 18	December 2018	2,328	1,688
Put Dec 18 097.500 ED 12/17/18	90DAY EURODOLLAR FUT DEC 18	December 2018	(2,328)	(1,091)
Call Aug 18 019.500 ED 082118	MXN/USD SPOT OPTION 2018	August 2018	(3,050,000)	(97)
Call Aug 18 066.190 ED 082418	RUB/USD SPOT OPTION 2018	August 2018	(1,400,000)	(12)
Call Aug 18 066.090 ED 082718	RUB/USD SPOT OPTION 2018	August 2018	(1,400,000)	(12)
Call Aug 18 065.962 ED 082418	RUB/USD SPOT OPTION 2018	August 2018	(3,400,000)	(25)
Call Aug 18 066.400 ED 08/24/2018	RUB/USD SPOT OPTION 2018	August 2018	(2,300,000)	(15)
Call Aug 18 067.400 ED 081718	RUB/USD SPOT OPTION 2018	August 2018	(1,000,000)	(4)
Call Aug 18 066.550 ED 081718	RUB/USD SPOT OPTION 2018	August 2018	(1,800,000)	(9)
Call Aug 18 066.490 ED 081718	RUB/USD SPOT OPTION 2018	August 2018	(1,800,000)	(9)
Call July 18 066.600 ED 07/9/18	RUB/USD SPOT OPTION 2018	July 2018	(1,700,000)	(1)
Call July 18 066.3834 ED 070218	RUB/USD SPOT OPTION 2018	July 2018	(1,400,000)	0
Call Aug 18 021.850 ED 081718	MXN/USD SPOT OPTION 2018	August 2018	(1,600,000)	(4)
Call July 18 021.250 ED 071118	MXN/USD SPOT OPTION 2018	July 2018	(480,000)	(1)
Call July 18 021.200 ED 070518	MXN/USD SPOT OPTION 2018	July 2018	(2,020,000)	(1)
Call July 18 019.250 ED 071918	MXN/USD SPOT OPTION 2018	July 2018	(3,050,000)	(96)
Call Aug 18 021.940 ED 081618	MXN/USD SPOT OPTION 2018	August 2018	(1,800,000)	(3)
Call Aug 18 021.920 ED 082118	MXN/USD SPOT OPTION 2018	August 2018	(1,800,000)	(4)
Put July 18 001.332 ED 071218	USD/GBP SPOT OPTION 2018	July 2018	(1,441,000)	(21)
Put July 18 001.3225 ED 071218	USD/GBP SPOT OPTION 2018	July 2018	(3,800,000)	(32)
Put Aug 18 000.722 ED 08/20/18	USD/AUD SPOT OPTION 2018	August 2018	(8,200,000)	(32)
Total Cash & Cash Equivalents				1,397
Put July 18 000.750 ED 07/18/18	CDX SP CDX.NA.IG.30 V1	July 2018	(2,100,000)	(1)
Put July 18 000.750 ED 071818	CDX SP CDX.NA.IG.30 V1 062023	July 2018	(2,200,000)	(1)
Put Dec 19 002.945 ED 120919	IRS P US0003M R 2.945% 12/11/4	December 2019	2,200,000	144
Put Aug 18 002.940 ED 08/20/18	IRS P USD 30Y 97BPS R 2.94%	August 2018	1,600,000	35
Put Aug 18 002.800 ED 08/20/18	IRS P USD 5Y 22BPS R 2.8%	August 2018	(6,900,000)	(51)
Put Aug 18 002.905 ED 082018	IRS P USD 30Y 98BPS R 2.905%	August 2018	4,900,000	130
Put Aug 18 002.800 ED 082018	IRS P USD 5Y 22BPS R 2.8%	August 2018	(21,600,000)	(159)
Put Dec 19 002.750 ED 12/09/19	IRS P US0003M R 2.75% 12/11/24	December 2019	(9,900,000)	(206)
Put Aug 18 119.500 ED 072718	US 10YR NOTE FUTURE SEP 18	August 2018	(59)	(11)
Put Aug 18 161.500 ED 07/27/18	EURO-BUND FUTURE SEP 18	August 2018	(78)	(28)
Put Aug 15 160.500 ED 07/27/18	EURO-BUND FUTURE SEP 18	August 2018	(71)	(10)
Total Fixed Income				(158)
Put July 18 2770.000 ED 072018	S&P 500 INDEX SPX	July 2018	(1,154)	(6,636)
Put July 18 2755.000 ED 072718	S & P 500 INDEX (SPX)	July 2018	(383)	(1,969)
Put July 18 2780.000 ED 071318	S & P 500 INDEX (SPX)	July 2018	(380)	(2,367)
Put Aug 18 2720.000 ED 083118	S & P 500 INDEX (SPX)	August 2018	(1,154)	(6,497)
Put July 18 2730.000 ED 070618	S & P 500 INDEX (SPX)	July 2018	(384)	(856)
Call Jan 19 3000.000 ED 011819	S & P 500 INDEX (SPX)	January 2019	116	124
Call Jan 19 055.000 ED 011819	ISHARES MSCI EMERGING MARKET	January 2019	5,367	27
Put July 18 2770.000 ED 072018	S & P 500 INDEX (SPX)	July 2018	1,508	70
Total Equity				(18,104)
Total				\$ (16,865)

¹ Options held in commingled accounts are not included in this table.

Alternative Investments

The Alternative Investment category includes the following asset classes: private equity, hedge funds, private debt, real estate and infrastructure.

Private equity, private debt, real estate and private infrastructure investments are typically structured as limited partnerships. In this structure, the Systems is one of several limited partners, while the investment manager serves as the general partner. Investing in such limited partnerships legally obligates the Systems to invest the committed amount until the investment is fully funded or the contractual investment period has expired. Hedge fund investments are typically on subscription basis with a single, initial investment with no further commitment.

The Systems established several strategic partnerships to gain access to deal flow, to receive favorable economics and to efficiently take advantage of market opportunities. Investments within the strategic partnership accounts may include allocations to any asset class including those considered alternative investments. Assets of Strategic Partnerships are reported within their respective asset class totals.

The Commission's intent is to access superior risk-adjusted returns through investing in alternative investment asset classes. Due to their low correlation to traditional asset classes, alternative investments diversify the portfolio and help reduce the risk associated with volatility of returns.

Commitments

The Commission, on behalf of the Systems, has entered into contractual agreements with numerous alternative investment managers and is committed for future funding of private equity, private debt, real estate and private infrastructure investments. At June 30, 2018, the Systems' commitments, including commitments within Strategic Partnerships, are shown in the following table (amounts expressed in thousands):

	Total Commitment	Amount Funded to Date	Remaining Unfunded Commitment
Limited Partnerships USD			
Private Equity	\$ 4,137,812	\$ 3,304,186	\$ 833,626
Private Debt	5,064,658	3,479,275	1,585,383
Real Estate	3,120,476	2,330,489	789,987
Totals	\$ 12,322,946	\$ 9,113,950	\$ 3,208,996
Limited Partnerships EUR			
Private Equity	€ 429,080	€ 244,185	€ 184,895
Infrastructure	125,000		125,000
Totals	€ 554,080	€ 244,185	€ 309,895
Limited Partnerships AUD			
Private Equity	\$ 100,000	\$ 44,401	\$ 55,599
Totals	\$ 100,000	\$ 44,401	\$ 55,599

Securities Lending

The Systems' investment portfolio currently participates in a securities lending program, managed by BNYM ("Securities Lending Program"), whereby securities are loaned for the purpose of generating additional income. BNYM is responsible for making loans of securities on a collateralized basis to various third party broker-dealers and financial institutions and collecting cash and non-cash collateral. The fair value of the required collateral must initially meet or exceed 102 percent of the fair value of the securities loaned for U. S. securities, 105 percent for cross currency securities and 107 percent for equity securities, providing a margin against a decline in the fair value of collateral. If the collateral value falls below 102 percent, the borrower must post additional collateral. In conjunction with generating revenue, the collateral pool seeks to maintain a net asset value (NAV) of \$1.00, which is determined by dividing the fair value of the assets by the cost of those assets.

There are no restrictions on the amount of securities that may be loaned and conservative investment guidelines continue to be maintained within the Securities Lending Program. The re-investment of the cash collateral is restricted to short duration, very low risk securities and is monitored by RSIC on an ongoing basis. The types of securities available for loan during the year ended June 30, 2018 included U. S. Government securities, U. S. Government agencies, Corporate bonds, Non-U. S. Sovereign debt and Global equities. The contractual agreement between the RSIC and BNYM provides indemnification in the event the borrower fails to return the securities lent or fails to pay the Systems income distribution by the securities' issuers while the securities are on loan. Indemnification is also provided if the investment of

cash collateral results in investment loss. Cash, U. S. Government securities, Corporate securities, Asset-backed securities and Global equities are received as collateral for these loans. Collateral securities cannot be pledged or sold without a borrower default. Cash collateral received is invested, and accordingly, investments made with cash collateral are reported as an asset. A corresponding liability is recorded as the Systems must return the cash collateral to the borrower upon the expiration of the loan.

At June 30, 2018, the fair value of securities on loan was \$78.64 million. The fair value of the invested cash collateral was \$34.61 million, securities lending obligations were \$81.51 million with the difference reported within "Other Liabilities" on the Statement of Fiduciary Net Position. The gross securities lending revenue for the fiscal year was \$2.0 million, an increase from \$773 thousand in the prior year. Since November 2008, gains and losses from the Securities Lending Program have been excluded from the Total Plan performance calculations.

With regard to counterparty credit risk, the Systems' cash collateral invested is held by the counterparty and is uninsured. All securities loaned can be terminated on demand by either the Systems or the borrower. At year end the average number of days the loans were outstanding was one day. The average weighted maturity of investments made with cash collateral was two days. At June 30, 2018, there had been no losses resulting from borrower defaults and the Systems had no credit risk exposure to borrowers because the amounts the Systems owed the borrowers exceeded the amounts the borrowers owed the Systems.

The following table presents the fair value (amounts expressed in thousands) of the underlying securities and the total collateral received for securities on loan at June 30, 2018:

	SCRS	PORS	GARS	JSRS	SCNG	06/30/18 TOTALS	06/30/17 TOTALS
Securities lent for cash collateral							
Corporate bonds	\$ 11,941	\$ 2,046	\$ 14	\$ 71	\$ 11	\$ 14,083	\$ 15,354
Global Public Equity	54,737	9,380	62	324	53	64,556	142,317
Global Fixed Income							6,982
Total	<u>\$ 66,678</u>	<u>\$ 11,426</u>	<u>\$ 76</u>	<u>\$ 395</u>	<u>\$ 64</u>	<u>\$ 78,639</u>	<u>\$ 164,653</u>
Securities lent for non-cash collateral							
U. S. Government securities	\$ 66,512	\$ 11,398	\$ 76	\$ 394	\$ 64	\$ 78,444	\$ -
Corporate Bonds	168	29		1		198	7,447
Global Public Equity	726,125	124,433	827	4,300	700	856,385	93,693
Total	<u>\$ 792,805</u>	<u>\$ 135,860</u>	<u>\$ 903</u>	<u>\$ 4,695</u>	<u>\$ 764</u>	<u>\$ 935,027</u>	<u>\$ 101,140</u>
Cash collateral invested as follows							
Repurchase agreements	\$ 29,348	\$ 5,029	\$ 33	\$ 174	\$ 28	\$ 34,612	\$ 123,275
Total	<u>\$ 29,348</u>	<u>\$ 5,029</u>	<u>\$ 33</u>	<u>\$ 174</u>	<u>\$ 28</u>	<u>\$ 34,612</u>	<u>\$ 123,275</u>
Securities received as collateral							
U.S. Government securities	\$ 149,018	\$ 25,537	\$ 170	\$ 883	\$ 143	\$ 175,751	\$ 103,875
Global Public Equity	681,613	116,805	776	4,036	657	803,887	
Global Fixed Income	41,173	7,056	47	244	40	48,560	
Total	<u>\$ 871,804</u>	<u>\$ 149,398</u>	<u>\$ 993</u>	<u>\$ 5,163</u>	<u>\$ 840</u>	<u>\$ 1,028,198</u>	<u>\$ 103,875</u>

IV. Transfers between Systems

Transfers between systems are statutorily authorized internal transfers of contributions and service credit from one retirement system to another retirement system that result from members voluntarily initiating the transfer when certain conditions are met.

Transfers made within the systems administered by PEBA during the fiscal year ended June 30, 2018, were as follows (amounts expressed in thousands):

Transfers from:	Transfers to:					
	SCRS	PORS	GARS	JSRS	SCNG	Total
SCRS	\$ -	\$ 1,534	\$ -	\$ -	\$ -	\$ 1,534
PORS						-
GARS						-
JSRS						-
SCNG						-
Total	<u>\$ -</u>	<u>\$ 1,534</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 1,534</u>

The following schedule reflects amounts due to or due from other systems as of June 30, 2018, (amounts expressed in thousands):

Due from:	Due to:					
	SCRS	PORS	GARS	JSRS	SCNG	Total
SCRS	\$ -	\$ 278	\$ -	\$ -	\$ -	\$ 278
PORS						-
GARS						-
JSRS						-
SCNG						-
Total	<u>\$ -</u>	<u>\$ 278</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 278</u>

V. Related Party Transactions

The pension plans provide pension and other benefits to employees of all state agencies. Revenues attributed to these agencies are recorded in the financial statements as employee and employer contributions and constitute approximately 33 percent of combined contribution revenues.

At June 30, 2018, liabilities of approximately \$67.0 million were due to the Employee Insurance Program. Employee and employer contributions receivable of approximately \$76.3 million were due from institutions of higher education and quasi-state agencies.

The SCNG Supplemental Retirement Plan received state appropriated contributions in the amount of \$4.8 million during the fiscal year.

PEBA directly received funds for the South Carolina Retirement System Trust Fund and the Police Officers Retirement System Trust Fund as budgeted

by the state in South Carolina's 2017-2018 Appropriations Act, Section 117.151. PEBA received the funds from the general fund of the state and in turn issued credit invoices to each employer based on each employer's proportionate share of the appropriated funds. Participating employers then applied the credit invoices towards contributions otherwise due to the Systems for the fiscal year. The amount of nonemployer funds appropriated totaled \$105 million and \$13.1 million for SCRS and PORS respectively.

The Retirement System Investment Commission is a separate state agency; however, the administrative costs of the Commission are funded by transfers from the Systems' trust funds. Transfers in the amount of approximately \$11.9 million were made to the Commission during the fiscal year.

VI. Deferred Retirement Option Plans

The TERI program was a deferred retirement option plan available to active SCRS members eligible for service retirement on or after January 1, 2001 but before June 30, 2018. When a member entered TERI, the member's status changed from an active member to a retiree even though the employee continued to work at their regular job and earn their regular salary for a period of up to five years. TERI participants continued to contribute at the same rate as active members. No additional service credit was earned during this period and participants were ineligible for disability retirement benefits. During the TERI participation period, the retiree's monthly benefits were accumulated in the trust account. Upon termination of employment at the end of the TERI period, funds were distributed and the retiree elected a payment method to either roll over their funds into a qualified retirement plan or to receive a single-sum distribution (or a combination thereof). No interest was paid on the participant funds accumulated in the TERI account.

Legislation enacted in 2012 closed the TERI program to all members effective June 30, 2018.

As of June 30, 2018, the benefits held in trust for 4,808 TERI program participants totaled \$377,263,376.

A deferred retirement option plan exists under JSRS. A member who has not yet reached the age of 60 years, but who is eligible to retire and receive the maximum monthly benefit, may retire and continue to serve as a judge, a solicitor or a circuit public defender. The member's normal monthly retirement benefit is deferred and placed in the system's trust fund on behalf of the member. Upon reaching the age of 60 years, the balance of the member's deferred retirement benefit is distributed to the member. As of June 30, 2018, the benefits held in trust totaled \$331,916.

VII. Capital Assets

Capital assets at June 30, 2018, consist of the following amounts (expressed in thousands).

	Beginning Balances 7/1/2017	Additions	Deletions	Ending Balances 6/30/2018
Asset Class (at Cost)				
Land	\$ 582	\$ -	\$ -	\$ 582
Building	4,749			4,749
Equipment	2,070	41		2,111
Total Capital Assets	7,401	41	-	7,442
Accumulated Depreciation				
Building	2,942	119		3,061
Equipment	1,922	97		2,019
Total Accumulated Depreciation	4,864	216	-	5,080
Capital Assets, Net	\$ 2,537	\$ (175)	\$ -	\$ 2,362

VIII. Compensated Absences

As state employees, most full-time permanent employees of SC PEBA's Retirement Division earn 15 days of annual leave and 15 days of sick leave per year during their first ten years of service. After ten years of service is complete, most employees earn an additional 1.25 days of annual leave for each year of service over ten until they reach a maximum of 30 days per year. Sick leave earnings remain at 15 days per year regardless of years of service. Employees may carry forward up to 45 days of annual leave and 180 days of sick leave from one calendar year to the next. Upon termination of employment, employees are eligible to receive payment for up to 45 days of accumulated unused annual leave at the pay rate then in effect. Employees are not eligible to receive payment for accumulated unused sick leave upon termination. As of June 30, 2018, the total amount accrued for unused annual leave for PEBA's Retirement Division employees was \$816,344 and the associated liability is included in Other Liabilities on the Statement of Fiduciary Net Position.

IX. Participation in Pension Plans

Generally, all employees of PEBA are required to participate in the South Carolina Retirement System (SCRS) or the State Optional Retirement Program (ORP) as a condition of employment. Additional information related to membership, benefits and contribution requirements is contained within these notes to the financial statements.

Employer contributions for Retirement Division staff are paid by PEBA and are allocated to the pension trust funds along with all other administrative expenses. Administrative expenses of the Systems are funded by investment earnings. For the year ended June 30, 2018, PEBA's contributions to SCRS for Retirement Division staff were \$1,130,610 of which \$80,190 represented the legislatively appropriated credit.

X. Net Pension Liability of Employers and Nonemployer

The total pension liability of each defined benefit pension plan summarized below was determined based on the most recent actuarial valuation, which was conducted using membership data as of July 1, 2017, projected forward to the end of the fiscal year, and financial information as of June 30, 2018, using generally accepted actuarial procedures. Information included in the following schedule is based on the certification provided by our consulting actuary, GRS Consulting. A Schedule of Employers' and Nonemployer's Net Pension Liability is intended to provide information about whether the plan fiduciary net positions are increasing or decreasing over time relative to the total pension liability. This schedule as well as a Schedule of Changes in the Employers' and Nonemployer's Net Pension Liability is presented in the Required Supplementary Information (RSI) section.

The net pension liability (i.e. the Systems' total pension liability determined in accordance with GASB Statement No. 67 less the fiduciary net position) as of June 30, 2018, is as follows (dollar amounts expressed in thousands):

	Total Pension Liability	Plan Fiduciary Net Position	Employers' and Nonemployer's Net Pension Liability	Plan Fiduciary Net Position as a % of the Total Pension Liability
SCRS	\$ 48,821,730	\$ 26,414,916	\$ 22,406,814	54.1%
PORS	7,403,973	4,570,431	2,833,542	61.7%
GARS	74,062	33,394	40,668	45.1%
JSRS	305,472	160,036	145,436	52.4%
SCNG	67,591	28,327	39,264	41.9%

Actuarial valuations of the ongoing plan involve estimates of the reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality and future salary increases. Amounts determined regarding the net pension liability are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. South Carolina state statute requires that an actuarial experience study be completed at least once in each five-year period. An experience report on the Systems was most recently issued as of July 1, 2015.

The following table provides a summary of the actuarial assumptions and methods used to calculate the Total Pension Liability as of June 30, 2018. The Total Pension Liability as of June 30, 2018, is based on the July 1, 2017 actuarial valuation.

	Entry age normal	Entry age normal	Entry age normal	Entry age normal	Entry age normal
Actuarial cost method	Entry age normal	Entry age normal	Entry age normal	Entry age normal	Entry age normal
Actuarial assumptions:					
Investment rate of return ¹	7.25%	7.25%	7.25%	7.25%	7.25%
Projected salary increases	3.0% to 12.5% (varies by service) ¹	3.5% to 9.5% (varies by service) ¹	None	2.75% ¹	None
Benefit adjustments	lesser of 1% or \$500 annually	lesser of 1% or \$500 annually	None	2.75%	None

¹Includes inflation at 2.25%

The post-retiree mortality assumption is dependent upon the member's job category and gender. The base mortality assumption, the 2016 Public Retirees of South Carolina Mortality table (2016 PRSC), was developed using the System's mortality experience. These base rates are adjusted for future improvement in mortality using published Scale AA projected from the year 2016.

Former Job Class	Males	Females
Educators and Judges	2016 PRSC Males multiplied by 92%	2016 PRSC Females multiplied by 98%
General Employees and Members of the General Assembly	2016 PRSC Males multiplied by 100%	2016 PRSC Females multiplied by 111%
Public Safety, Firefighters and members of the South Carolina National Guard	2016 PRSC Males multiplied by 125%	2016 PRSC Females multiplied by 111%

The long-term expected rate of return on pension plan investments is based upon 30 year capital market assumptions. The long-term expected rates of return represent assumptions developed using an arithmetic building block approach primarily based on consensus expectations and market based inputs. Expected returns are net of investment fees. The expected returns, along with the expected inflation rate, form the basis for the target asset allocation adopted at the beginning of the 2018 fiscal year. The long-term expected rate of return is produced by weighting the expected future real rates of return by the target allocation percentage and adding expected inflation and is summarized in the table on the following page. For actuarial purposes, the 7.25 percent assumed annual investment rate of return used in the calculation of the total pension liability includes a 5.00 percent real rate of return and a 2.25 percent inflation component.

Allocation / Exposure	Policy Target	Expected Arithmetic Real rate of Return	Long Term Expected Portfolio Real Rate of Return
Global Equity	47.0%		
Global Public Equity ^{1,2}	33.0%	6.99%	2.31%
Private Equity ^{2,3}	9.0%	8.73%	0.79%
Equity Options Strategies	5.0%	5.52%	0.28%
Real Assets	10.0%		
Real Estate (Private) ^{2,3}	6.0%	3.54%	0.21%
Real Estate (REITs) ²	2.0%	5.46%	0.11%
Infrastructure	2.0%	5.09%	0.10%
Opportunistic	13.0%		
GTAA/Risk Parity ¹	8.0%	3.75%	0.30%
Hedge Funds (non-PA) ¹	2.0%	3.45%	0.07%
Other Opportunistic Strategies ¹	3.0%	3.75%	0.11%
Diversified Credit	18.0%		
Mixed Credit ^{1,2}	6.0%	3.05%	0.18%
Emerging Markets Debt ¹	5.0%	3.94%	0.20%
Private Debt ^{1,2,3}	7.0%	3.89%	0.27%
Conservative Fixed Income	12.0%		
Core Fixed Income	10.0%	0.94%	0.09%
Cash and Short Duration (Net)	2.0%	0.34%	0.01%
Total Expected Return	100.0%		5.03%
Inflation for Actuarial Purposes			2.25%
			7.28%

¹Portable Alpha Strategies will be capped at 12% of total assets; Hedge funds (including all hedge funds used in portable alpha implementation) capped at 20% of total assets.

²The target weights to Private Equity, Private Debt and Real Estate will be equal to their actual weights as of prior month end. Private Equity and Public Equity combine for 42 percent of entire portfolio. Private Debt and Mixed Credit combine for 13 percent of the entire portfolio. Private Real Estate and Real Estate (REITs) combine for 8 percent of entire portfolio.

³Staff and Consultant will notify the Commission if Private Markets assets exceed 25% of total assets.

The discount rate used to measure the total pension liability was 7.25 percent. The projection of cash flows used to determine the discount rate assumed that contributions from participating employers in SCRS and PORS will be made based on the actuarially determined rates based on provisions in the South Carolina Code of Laws. The contributions required for JSRS, GARS, and the SCNG are based on PEBA's current funding policy which include the change in funding in future years as a result of the enactment of the Retirement System Funding and Administration Act of 2017. Based on those assumptions, the System's fiduciary net position was projected to be available to make all the projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

In accordance with GASB Statement No. 67 regarding the disclosure of the sensitivity of the net pension liability to changes in the discount rate, the following table presents the net pension liability of the participating employers calculated using the discount rate of 7.25 percent, as well as what the employers' and nonemployer's net pension liability would be if it were calculated using a discount rate that is 1.00 percent lower (6.25 percent) or 1.00 percent higher (8.25 percent) than the current rate.

Discount Rate Sensitivity Analysis

(Amounts expressed in thousands)

	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
SCRS	\$ 28,631,747	\$ 22,406,814	\$ 17,956,583
PORS	3,819,969	2,833,542	2,025,576
GARS	47,113	40,668	35,116
JSRS	178,963	145,436	117,750
SCNG	47,778	39,264	32,287

XI. Death Benefit Program

In addition to monthly pension benefits provided through the Systems, a death benefit program is available to employers. For participating employers, incidental death benefits are provided for both active and retired members. These benefits are funded through separate death benefit programs within SCRS and PORS on a cost-sharing, multiple-employer basis. The assets in the death benefits fund are not held separately in a dedicated trust for the sole purpose of paying death benefits to beneficiaries of deceased members. These benefits are considered allowable within the defined benefit plans and are held within the pension trust funds. Coverage is provided to eligible active and retired

working members as well as non-working retirees under the governing statute. Funding for the plans is collected as a percent of covered payroll as determined by the Systems' actuary and approved by the governing board. The current employer contribution rates for the programs are 0.15 percent and 0.20 percent of payroll for SCRS and PORS respectively. These contributions fund both the active and retiree death benefits.

Active Death Benefits

An incidental death benefit is payable upon the death of an SCRS, State ORP or PORS contributing member who worked for a participating employer at the time of death. The member must have been

in service and had at least one full year of membership or must have died as a result of an injury arising in the course of performing his duties regardless of length of membership. The incidental death benefit is equal to the annual earnable compensation of the member at the time of death and is payable apart and separate from the payment of pension benefits.

Retiree Death Benefits

Retired members of SCRS and PORS whose last employer prior to retirement is covered by the program, and who met applicable service credit requirements, are also protected under the state-sponsored death benefit program. Upon the death of a retired member, the beneficiary of a non-working retiree will receive a benefit payment of \$2,000, \$4,000 or \$6,000 based on the member's total creditable service at the time of retirement.

XII. Litigation

In addition to the litigation mentioned below, controversies or disputes between the South Carolina Retirement Systems and its members arising out of the provisions of Title 9 of the South Carolina Code of Laws (Retirement provisions) are resolved through the "South Carolina Retirement Systems Claims Procedures Act" established by S.C. Code Ann. §9-21-10 et seq. Claims brought pursuant to the Claims Procedures Act generally involve matters pertinent to the individual member or beneficiary. Claims may not be brought on behalf of a class under the Claims Procedures Act.

Marc S. Kirschner, as Litigation Trustee for the Tribune Litigation Trust v. Dennis J. Fitzsimmons, et al., United States District Court Southern District of New York, Case No. 1:11-cv-02652. This case is a bankruptcy litigation matter filed on December 20, 2011, and has been stayed since shortly after it was filed. The Plaintiff attempted to serve a summons on the South Carolina Retirement System in August

Members who work after retirement by returning to covered employment as a working retiree are eligible for an increased level of death benefits. Beneficiaries of working retirees are provided with a death benefit equal to the amount of the member's annual earnable compensation in lieu of the standard \$2,000, \$4,000 or \$6,000 retired member benefit.

All benefits provided by the Systems are included in the actuarial valuation, including the incidental death benefit program for SCRS, PORS, GARS and JSRS. The July 1, 2017 actuarial valuations reflect the inclusion of the assets and liabilities of the incidental death benefit program and accidental death benefits for PORS.

2013. SCRS is a defendant as a result of selling Tribune Company stock in connection with a leveraged buyout of the Tribune Company in 2007. Through this lawsuit the creditors of the Tribune Company are attempting to claw-back funds received by SCRS in connection with the sale of the stock. The plaintiff has asserted a claim of approximately two million dollars against SCRS. The South Carolina Retirement System Investment Commission contests the amount the plaintiff alleges SCRS received, contends that there are persuasive arguments favoring dismissal, and has engaged counsel to represent SCRS in this matter. Although the one claim against SCRS has been dismissed by the court, the case remains active due to remaining claims against other defendants, the appeals process, and a related matter on appeal to the Supreme Court.

South Carolina Retirement Systems Required Supplementary Information

Schedule of Changes in the Employers' and Nonemployer's Net Pension Liability¹

SCRS Pension Trust Fund
Years Ended June 30
(Amounts expressed in thousands)

	2018	2017	2016	2015	2014
Total Pension Liability					
Service cost	\$ 910,846	\$ 804,057	\$ 763,357	\$ 744,197	\$ 739,021
Interest	3,401,588	3,318,051	3,231,572	3,148,090	3,021,004
Benefit changes					
Difference between actual and expected experience	(172,340)	54,584	46,714	(44,636)	638,745
Assumption changes		1,746,649			
Benefit payments	(3,562,801)	(3,035,119)	(2,782,738)	(2,705,547)	(2,571,049)
Net Change in Total Pension Liability	577,293	2,888,222	1,258,905	1,142,104	1,827,721
Total Pension Liability - Beginning	48,244,437	45,356,215	44,097,310	42,955,206	41,127,485
Total Pension Liability - Ending (a)	<u>\$ 48,821,730</u>	<u>\$ 48,244,437</u>	<u>\$ 45,356,215</u>	<u>\$ 44,097,310</u>	<u>\$ 42,955,206</u>
Plan Fiduciary Net Position					
Employer contributions	\$ 1,300,477	\$ 1,168,847	\$ 1,072,659	\$ 1,022,478	\$ 962,798
Nonemployer contributions	104,974				
Employee contributions	868,681	826,543	754,153	716,107	652,631
Refunds of contributions to members	(113,867)	(105,169)	(93,694)	(95,104)	(90,250)
Annuity benefits	(3,426,650)	(2,907,273)	(2,668,385)	(2,590,299)	(2,461,559)
Death benefits	(22,284)	(22,677)	(20,659)	(20,144)	(19,240)
Net investment income (loss)	1,986,948	2,791,215	(165,394)	374,152	3,517,324
Administrative expenses	(14,658)	(13,469)	(13,149)	(12,554)	(11,765)
Net transfers to other systems	(1,534)	(1,550)	(997)	(1,329)	(2,470)
Net Change in Plan Fiduciary Net Position	682,087	1,736,467	(1,135,466)	(606,693)	2,547,469
Plan Fiduciary Net Position - Beginning	25,732,829	23,996,362	25,131,828	25,738,521	23,191,052
Plan Fiduciary Net Position - Ending (b)	<u>\$ 26,414,916</u>	<u>\$ 25,732,829</u>	<u>\$ 23,996,362</u>	<u>\$ 25,131,828</u>	<u>\$ 25,738,521</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 22,406,814</u>	<u>\$ 22,511,608</u>	<u>\$ 21,359,853</u>	<u>\$ 18,965,482</u>	<u>\$ 17,216,685</u>

¹Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

South Carolina Retirement Systems

Required Supplementary Information (continued)

Schedule of Changes in the Employers' and Nonemployer's Net Pension Liability¹

PORS Pension Trust Fund
Years Ended June 30
(Amounts expressed in thousands)

	2018	2017	2016	2015	2014
Total Pension Liability					
Service cost	\$ 184,570	\$ 166,682	\$ 156,567	\$ 154,102	\$ 149,606
Interest	500,758	473,059	453,696	435,329	417,950
Benefit changes					-
Difference between actual and expected experience	102,882	5,044	11,582	6,771	64,336
Assumption changes		333,190			
Benefit payments	(397,921)	(376,801)	(360,656)	(344,410)	(331,783)
Net Change in Total Pension Liability	390,289	601,174	261,189	251,792	300,109
Total Pension Liability - Beginning	7,013,684	6,412,510	6,151,321	5,899,529	5,599,420
Total Pension Liability - Ending (a)	<u>\$ 7,403,973</u>	<u>\$ 7,013,684</u>	<u>\$ 6,412,510</u>	<u>\$ 6,151,321</u>	<u>\$ 5,899,529</u>
Plan Fiduciary Net Position					
Employer contributions	\$ 211,793	\$ 192,006	\$ 175,223	\$ 166,451	\$ 155,608
Nonemployer contributions	13,122				
Employee contributions	138,652	127,840	115,188	106,854	96,004
Refunds of contributions to members	(23,899)	(19,964)	(19,178)	(17,453)	(16,184)
Annuity benefits	(369,536)	(352,986)	(337,928)	(323,252)	(311,593)
Death benefits	(4,485)	(3,852)	(3,550)	(3,705)	(4,007)
Net investment income (loss)	331,529	455,914	(24,636)	58,705	538,386
Administrative expenses	(2,402)	(2,149)	(2,055)	(1,938)	(1,820)
Net transfers to other systems	1,534	1,278	1,147	1,061	2,260
Net Change in Plan Fiduciary Net Position	296,308	398,087	(95,789)	(13,277)	458,654
Plan Fiduciary Net Position - Beginning	4,274,123	3,876,036	3,971,825	3,985,102	3,526,448
Plan Fiduciary Net Position - Ending (b)	<u>\$ 4,570,431</u>	<u>\$ 4,274,123</u>	<u>\$ 3,876,036</u>	<u>\$ 3,971,825</u>	<u>\$ 3,985,102</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 2,833,542</u>	<u>\$ 2,739,561</u>	<u>\$ 2,536,474</u>	<u>\$ 2,179,496</u>	<u>\$ 1,914,427</u>

¹Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

South Carolina Retirement Systems

Required Supplementary Information (continued)

Schedule of Changes in the Employers' and Nonemployer's Net Pension Liability¹

GARS Pension Trust Fund
Years Ended June 30
(Amounts expressed in thousands)

	2018	2017	2016	2015	2014
Total Pension Liability					
Service cost	\$ 464	\$ 488	\$ 493	\$ 553	\$ 572
Interest	5,200	5,293	5,301	5,380	5,437
Benefit changes					
Difference between actual and expected experience	138	(348)	798	(294)	(2,585)
Assumption changes		2,330			
Benefit payments	(6,468)	(6,737)	(6,656)	(6,660)	(6,861)
Net Change in Total Pension Liability	(666)	1,026	(64)	(1,021)	(3,437)
Total Pension Liability - Beginning	74,728	73,702	73,766	74,787	78,224
Total Pension Liability - Ending (a)	<u>\$ 74,062</u>	<u>\$ 74,728</u>	<u>\$ 73,702</u>	<u>\$ 73,766</u>	<u>\$ 74,787</u>
Plan Fiduciary Net Position					
Employer contributions	\$ 5,428	\$ 4,539	\$ 4,501	\$ 4,275	\$ 4,063
Employee contributions	287	468	292	369	384
Refunds of contributions to members			(22)		(41)
Annuity benefits	(6,452)	(6,678)	(6,625)	(6,639)	(6,799)
Death benefits	(16)	(59)	(9)	(21)	(20)
Net investment income (loss)	2,376	3,329	(266)	500	4,545
Administrative expenses	(18)	(17)	(18)	(18)	(17)
Net transfers to other systems		19	(147)	(18)	15
Net Change in Plan Fiduciary Net Position	1,605	1,601	(2,294)	(1,552)	2,130
Plan Fiduciary Net Position - Beginning	31,789	30,188	32,482	34,034	31,904
Plan Fiduciary Net Position - Ending (b)	<u>\$ 33,394</u>	<u>\$ 31,789</u>	<u>\$ 30,188</u>	<u>\$ 32,482</u>	<u>\$ 34,034</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 40,668</u>	<u>\$ 42,939</u>	<u>\$ 43,514</u>	<u>\$ 41,284</u>	<u>\$ 40,753</u>

¹Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

South Carolina Retirement Systems

Required Supplementary Information (continued)

Schedule of Changes in the Employers' and Nonemployer's Net Pension Liability¹

JSRS Pension Trust Fund
Years Ended June 30
(Amounts expressed in thousands)

	2018	2017	2016	2015	2014
Total Pension Liability					
Service cost	\$ 6,521	\$ 6,186	\$ 5,886	\$ 5,760	\$ 5,571
Interest	21,271	20,404	20,022	19,440	18,857
Benefit changes				666	
Difference between actual and expected experience	(3,548)	(995)	(3,085)	(1,138)	(3,240)
Assumption changes		13,790			
Benefit payments	(17,811)	(18,602)	(17,191)	(16,836)	(16,684)
Net Change in Total Pension Liability	6,433	20,783	5,632	7,892	4,504
Total Pension Liability - Beginning	299,039	278,256	272,624	264,732	260,228
Total Pension Liability - Ending (a)	<u>\$ 305,472</u>	<u>\$ 299,039</u>	<u>\$ 278,256</u>	<u>\$ 272,624</u>	<u>\$ 264,732</u>
Plan Fiduciary Net Position					
Employer contributions	\$ 11,043	\$ 10,534	\$ 10,202	\$ 10,109	\$ 9,659
Employee contributions	3,016	2,928	2,303	3,153	2,448
Refunds of contributions to members		(629)	(60)		
Annuity benefits	(17,655)	(17,679)	(16,989)	(16,832)	(16,675)
Death benefits	(156)	(293)	(143)	(4)	(10)
Net investment income (loss)	11,723	16,399	(871)	2,216	19,962
Administrative expenses	(86)	(79)	(75)	(71)	(68)
Net transfers to other systems		253	(3)	286	195
Net Change in Plan Fiduciary Net Position	7,885	11,434	(5,636)	(1,143)	15,511
Plan Fiduciary Net Position - Beginning	152,151	140,717	146,353	147,496	131,985
Plan Fiduciary Net Position - Ending (b)	<u>\$ 160,036</u>	<u>\$ 152,151</u>	<u>\$ 140,717</u>	<u>\$ 146,353</u>	<u>\$ 147,496</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 145,436</u>	<u>\$ 146,888</u>	<u>\$ 137,539</u>	<u>\$ 126,271</u>	<u>\$ 117,236</u>

¹Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

South Carolina Retirement Systems

Required Supplementary Information (continued)

Schedule of Changes in the Employers' and Nonemployer's Net Pension Liability¹

SCNG Pension Trust Fund
Years Ended June 30
(Amounts expressed in thousands)

	2018	2017	2016	2015	2014
Total Pension Liability					
Service cost	\$ 804	\$ 696	\$ 689	\$ 690	\$ 697
Interest	4,743	4,589	4,594	4,481	4,417
Benefit changes					
Difference between actual and expected experience	(767)	(843)	(992)	612	(262)
Assumption changes		4,161			
Benefit payments	(4,411)	(4,426)	(4,310)	(4,249)	(4,248)
Net Change in Total Pension Liability	369	4,177	(19)	1,534	604
Total Pension Liability - Beginning	67,222	63,045	63,064	61,530	60,926
Total Pension Liability - Ending (a)	\$ 67,591	\$ 67,222	\$ 63,045	\$ 63,064	\$ 61,530
Plan Fiduciary Net Position					
Employer contributions	\$ 4,814	\$ 4,591	\$ 4,591	\$ 4,591	\$ 4,586
Employee contributions					
Refunds of contributions to members					
Annuity benefits	(4,411)	(4,425)	(4,310)	(4,249)	(4,248)
Death benefits					
Net investment income (loss)	1,902	2,533	(121)	313	2,806
Administrative expenses	(14)	(13)	(12)	(11)	(10)
Net transfers to other systems					
Net Change in Plan Fiduciary Net Position	2,291	2,686	148	644	3,134
Plan Fiduciary Net Position - Beginning	26,036	23,350	23,202	22,558	19,424
Plan Fiduciary Net Position - Ending (b)	\$ 28,327	\$ 26,036	\$ 23,350	\$ 23,202	\$ 22,558
Net Pension Liability - Ending (a) - (b)	\$ 39,264	\$ 41,186	\$ 39,695	\$ 39,862	\$ 38,972

¹Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

South Carolina Retirement Systems

Required Supplementary Information (continued)

Schedule of Employers' and Nonemployer's Net Pension Liability¹

(Dollar amounts expressed in thousands)

	Total Pension Liability	Plan Fiduciary Net Position	Employers' and Nonemployer's Net Pension Liability (Asset)	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	Projected Covered Payroll ²	Net Pension Liability as a Percentage of Covered Payroll
SCRS						
6/30/2018	\$ 48,821,730	\$ 26,414,916	22,406,814	54.1%	\$ 8,592,885	260.8%
6/30/2017	48,244,437	25,732,829	22,511,608	53.3%	8,213,042	274.1%
6/30/2016	45,356,215	23,996,362	21,359,853	52.9%	7,765,588	275.1%
6/30/2015	44,097,310	25,131,828	18,965,482	57.0%	7,539,996	251.5%
6/30/2014	42,955,206	25,738,521	17,216,685	59.9%	7,434,820	231.6%
PORS						
6/30/2018	7,403,973	4,570,431	2,833,542	61.7%	1,263,314	224.3%
6/30/2017	7,013,684	4,274,123	2,739,561	60.9%	1,187,195	230.8%
6/30/2016	6,412,510	3,876,036	2,536,474	60.4%	1,105,703	229.4%
6/30/2015	6,151,321	3,971,825	2,179,496	64.6%	1,076,885	202.4%
6/30/2014	5,899,529	3,985,102	1,914,427	67.5%	1,033,189	185.3%
GARS						
6/30/2018	74,062	33,394	40,668	45.1%	1,961	2,074.3%
6/30/2017	74,728	31,789	42,939	42.5%	2,316	1,853.7%
6/30/2016	73,702	30,188	43,514	41.0%	2,338	1,861.0%
6/30/2015	73,766	32,482	41,284	44.0%	2,601	1,587.5%
6/30/2014	74,787	34,034	40,753	45.5%	2,688	1,516.2%
JSRS						
6/30/2018	305,472	160,036	145,436	52.4%	22,347	650.8%
6/30/2017	299,039	152,151	146,888	50.9%	21,958	668.9%
6/30/2016	278,256	140,717	137,539	50.6%	21,267	646.7%
6/30/2015	272,624	146,353	126,271	53.7%	20,815	606.6%
6/30/2014	264,732	147,496	117,236	55.7%	20,407	574.5%
SCNG						
6/30/2018	67,591	28,327	39,264	41.9%	Not Applicable ³	Not Applicable ³
6/30/2017	67,222	26,036	41,186	38.7%	Not Applicable ³	Not Applicable ³
6/30/2016	63,045	23,350	39,695	37.0%	Not Applicable ³	Not Applicable ³
6/30/2015	63,064	23,202	39,862	36.8%	Not Applicable ³	Not Applicable ³
6/30/2014	61,530	22,558	38,972	36.7%	Not Applicable ³	Not Applicable ³

¹Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

²Projected covered payroll is based on the actuarial valuation associated with the measurement date and includes payroll for members earning but not yet receiving benefits.

³The contributions and benefits associated with the SCNG are not determined as a function of payroll.

South Carolina Retirement Systems

Required Supplementary Information (continued)

Schedule of Employers' and Nonemployer's Contributions

(Dollar amounts expressed in thousands)

	Actuarially Determined Contributions ¹	Amount of Contributions Recognized	Difference Between Actuarially Determined Contributions ² and Contributions Recognized	Projected Covered Payroll ³	Percentage of Contributions to Covered Payroll
SCRS					
6/30/2018	\$ 1,405,451	\$ 1,405,451	\$ -	\$ 8,592,885	16.4%
6/30/2017	1,168,847	1,168,847		8,213,042	14.2%
6/30/2016	1,072,659	1,072,659		7,765,588	13.8%
6/30/2015	1,022,478	1,022,478		7,539,996	13.6%
6/30/2014	962,798	962,798		7,434,820	12.9%
6/30/2013	948,157	948,157		7,356,231	12.9%
6/30/2012	824,652	824,652		7,687,558	10.7%
6/30/2011	808,343	808,343		7,769,820	10.4%
6/30/2010	818,523	818,523		7,761,808	10.5%
6/30/2009	827,502	827,502		7,559,172	10.9%
PORS					
6/30/2018	224,915	224,915		1,263,314	17.8%
6/30/2017	192,006	192,006		1,187,195	16.2%
6/30/2016	175,223	175,223		1,105,703	15.8%
6/30/2015	166,451	166,451		1,076,885	15.5%
6/30/2014	155,608	155,608		1,033,189	15.1%
6/30/2013	143,389	143,389		1,019,241	14.1%
6/30/2012	134,299	134,299		1,087,587	12.3%
6/30/2011	129,314	129,314		1,076,467	12.0%
6/30/2010	123,163	123,163		1,084,154	11.4%
6/30/2009	124,148	124,148		1,060,747	11.7%
GARS⁴					
6/30/2018	5,428	5,428		1,961	276.8%
6/30/2017	4,539	4,539		2,316	196.0%
6/30/2016	4,501	4,501		2,338	192.5%
6/30/2015	4,275	4,275		2,601	164.4%
6/30/2014	4,063	4,063		2,688	151.2%
6/30/2013	2,831	2,831		3,854	73.5%
6/30/2012	2,532	2,532		3,854	65.7%
6/30/2011	2,414	2,414		3,854	62.6%
6/30/2010	2,598	2,598		3,854	67.4%
6/30/2009	2,495	2,495		3,854	64.7%

Schedule of Employers' and Nonemployer's Contributions continued on next page

South Carolina Retirement Systems

Required Supplementary Information (continued)

Schedule of Employers' and Nonemployer's Contributions (cont.)

(Dollar amounts expressed in thousands)

	Actuarially Determined Contributions ¹	Amount of Contributions Recognized	Difference Between Actuarially Determined Contributions ² and Contributions Recognized	Projected Covered Payroll ³	Percentage of Contributions to Covered Payroll
JSRS					
6/30/2018	\$ 11,044	\$ 11,044	\$ -	\$ 22,347	49.4%
6/30/2017	10,534	10,534		21,958	48.0%
6/30/2016	10,202	10,202		21,267	48.0%
6/30/2015	10,109	10,109		20,815	48.6%
6/30/2014	9,659	9,659		20,407	47.3%
6/30/2013	8,667	8,667		19,221	45.1%
6/30/2012	8,414	8,414		18,661	45.1%
6/30/2011	8,414	8,414		18,661	45.1%
6/30/2010	8,414	8,414		18,661	45.1%
6/30/2009	8,414	8,414		18,661	45.1%
SCNG⁵					
6/30/2018	4,814	4,814		Not Applicable	Not Applicable
6/30/2017	4,509	4,591	(82)	Not Applicable	Not Applicable
6/30/2016	4,570	4,591	(21)	Not Applicable	Not Applicable
6/30/2015	4,591	4,591		Not Applicable	Not Applicable
6/30/2014	4,586	4,586		Not Applicable	Not Applicable
6/30/2013	4,539	4,539		Not Applicable	Not Applicable
6/30/2012	3,937	3,937		Not Applicable	Not Applicable
6/30/2011	3,905	3,905		Not Applicable	Not Applicable
6/30/2010	3,945	3,945		Not Applicable	Not Applicable
6/30/2009	4,052	4,052		Not Applicable	Not Applicable

¹ The actuarially determined contribution rate for SCRS and PORS is determined in accordance with the SC State Code of Laws. The contribution rate for JSRS is based on the funding policy maintained by the SC Public Employee Benefit Authority. Includes employer contributions on employee payroll of members in TERI as well as contributions remitted to SCRS on the payroll of employees participating in State ORP.

² The actuarially determined contributions are based on the funding policy maintained by the SC Public Employee Benefit Authority.

³ Projected covered payroll is based on the actuarial valuation associated with the measurement date and includes payroll for members earning but not yet receiving benefits.

⁴ GARS was closed to new members beginning with the 2012 general election.

⁵ Benefits for members in the SCNG are not a function of pay. For years prior to June 30, 2010, the Annual Pension Cost (APC) for SCNG includes both the Annual Required Contribution (ARC) and the discounted present value of the balance of the Net Pension Obligation (NPO). For fiscal years ended June 30, 2010 forward, the APC was calculated as part of the actuarial valuation and includes in the ARC.

South Carolina Retirement Systems Required Supplementary Information (continued)

Schedule of Investment Returns¹

Fiscal Year Ending June 30	Annual Money Weighted Rate of Return, Net of Investment Expense
2018	7.91%
2017	11.88
2016	(.47)
2015	1.59
2014	15.30

¹Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Notes to Required Supplementary Information

The following table provides a summary of the actuarial methods and significant assumptions used in calculations of the actuarially determined contributions for fiscal year 2018 for each of the individual plans administered by PEBA.

Summary of Actuarial Methods and Significant Assumptions¹

	SCRS	PORS	GARS	JSRS	SCNG
Valuation date	07/01/16	07/01/16	07/01/16	07/01/16	07/01/16
Actuarial cost method	Entry age normal	Entry age normal	Entry age normal	Entry age normal	Entry age normal
Amortization method	Level percent of pay	Level percent of pay	Level dollar	Level percent of pay	Level dollar
Amortization period	30 years variable, but not to exceed 30 years ²	30 years variable, but not to exceed 30 years ²	11 years, closed	30 years variable, but not to exceed 30 years	17 years, closed
Asset Valuation method	5-Year Smoothed	5-Year Smoothed	5-Year Smoothed	5-Year Smoothed	5-Year Smoothed
Actuarial assumptions:					
Inflation rate	2.25%	2.25%	2.25%	2.25%	2.25%
Projected salary increases	3.0% plus step-rate increases for members with less than 21 years of service ³	3.5% plus step-rate increases for members with less than 15 years of service ³	None	2.75% ³	None
Investment rate of return	7.50% ²	7.50% ²	7.50% ²	7.50% ²	7.50% ²
Benefit adjustments	lesser of 1% or \$500 annually	lesser of 1% or \$500 annually	None	2.75%	None

¹ The actual contribution rates and the actuarially determined contribution rates for SCRS and PORS are determined in accordance with Sections 9-1-1085 and 9-11-225 of the South Carolina Code, respectively. Contribution requirements for JSRS, GARS and the SCNG are determined in accordance with funding policies established and maintained by the PEBA Board.

² Pension reform legislation enacted effective July 1, 2017 lowered the investment rate of return from 7.50 to 7.25 percent and schedules the amortization period to be reduced one year for each of the next 10 years, to 20 years.

³Includes inflation at 2.25%.

South Carolina Retirement Systems

Schedule of Changes in Fiduciary Net Position

SCRS Pension Trust Fund Year Ended June 30, 2018

With summarized comparative totals for the year ended June 30, 2017
(Amounts expressed in thousands)

	EMPLOYEE FUND	EMPLOYER FUND	DEATH BENEFIT FUND	QEBA FUND	TOTAL	2017 TOTAL
Additions						
Employee contributions						
State	\$ 236,153	\$ 25,488	\$ -	\$ -	\$ 261,641	\$ 250,811
Public school	334,324	37,847			372,171	352,621
Other	220,741	14,128			234,869	223,111
Employer contributions						
State		428,023	5,787	699	434,509	389,494
Public school		537,641	6,740		544,381	489,296
Other		318,237	3,350		321,587	290,057
Nonemployer contributions						
State		36,726			36,726	
Public school		43,822			43,822	
Other		24,426			24,426	
Total contributions	791,218	1,466,338	15,877	699	2,274,132	1,995,390
Investment income						
Net appreciation						
in fair value of investments		1,787,006	7,423		1,794,429	2,641,803
Interest and dividend income		505,800	2,452		508,252	416,925
Investment expense		(317,139)	(287)		(317,426)	(268,173)
Net income from investing activities		1,975,667	9,588		1,985,255	2,790,555
From securities lending activities:						
Securities lending income		1,876	9		1,885	488
Securities lending borrower rebates		(191)	(1)		(192)	172
Net income from securities lending activities		1,685	8		1,693	660
Total net investment income		1,977,352	9,596		1,986,948	2,791,215
Supplemental retirement benefits funded by the State		355			355	393
Total additions	791,218	3,444,045	25,473	699	4,261,435	4,786,998
Deductions						
Refunds of contributions to members	113,867				113,867	105,169
Transfers of contributions to other systems	876	658			1,534	1,550
Regular retirement benefits		2,718,019		699	2,718,718	2,574,859
Deferred retirement benefits		707,932			707,932	332,414
Supplemental retirement benefits		355			355	393
Death benefits		(44)	22,328		22,284	22,677
Depreciation		189	1		190	236
Administrative expenses		14,398	70		14,468	13,233
Total deductions	114,743	3,441,507	22,399	699	3,579,348	3,050,531
Interfund transfers according to statutory requirements						
Contributions by members at retirement	(392,064)	392,064				
Interest credited to members' accounts	277,790	(277,790)				
Net interfund transfers	(114,274)	114,274				
Net increase in Net Position	562,201	116,812	3,074		682,087	1,736,467
Net Position Restricted for Pensions						
Beginning of year	7,938,850	17,669,644	124,335		25,732,829	23,996,362
End of year	<u>\$ 8,501,051</u>	<u>\$ 17,786,456</u>	<u>\$ 127,409</u>	<u>\$ -</u>	<u>\$ 26,414,916</u>	<u>\$ 25,732,829</u>

South Carolina Retirement Systems

Schedule of Changes in Fiduciary Net Position

PORS Pension Trust Fund
Year Ended June 30, 2018

With summarized comparative totals for the year ended June 30, 2017

(Amounts expressed in thousands)

	EMPLOYEE FUND	EMPLOYER FUND	DEATH BENEFIT FUND	ACCIDENTAL DEATH FUND	QEBA FUND	TOTAL	2017 TOTAL
Additions							
Employee contributions							
State	\$ 41,222	\$ 2,192	\$ -	\$ -	\$ -	\$ 43,414	\$ 39,934
Public school	55	451				506	436
Other	85,968	8,764				94,732	87,470
Employer contributions							
State		64,604	867	867	2	66,340	59,747
Public school		750	10	10		770	673
Other		141,110	1,837	1,736		144,683	131,586
Nonemployer contributions							
State		4,070				4,070	
Public school		44				44	
Other		9,008				9,008	
Total contributions	127,245	230,993	2,714	2,613	2	363,567	319,846
Investment income							
Net appreciation							
in fair value of investments		293,663	2,567	3,439		299,669	431,853
Interest and dividend income		83,810	860	1,153		85,823	68,259
Investment expense		(54,013)	(101)	(135)		(54,249)	(44,306)
Net income from investing activities		323,460	3,326	4,457		331,243	455,806
From securities lending activities:							
Securities lending income		311	3	4		318	80
Securities lending borrower rebates		(32)				(32)	28
Net income from securities lending activities		279	3	4		286	108
Total net investment income		323,739	3,329	4,461		331,529	455,914
Supplemental retirement benefits funded by the State		13				13	15
Transfers of contributions from other systems	876	658				1,534	1,278
Total additions	128,121	555,403	6,043	7,074	2	696,643	777,053
Deductions							
Refunds of contributions to members	23,899					23,899	19,964
Regular retirement benefits		369,534			2	369,536	352,986
Supplemental retirement benefits		13				13	15
Death Benefits			2,751			2,751	2,104
Accidental death benefits				1,734		1,734	1,748
Depreciation		25				25	32
Administrative expenses		2,321	24	32		2,377	2,117
Total deductions	23,899	371,893	2,775	1,766	2	400,335	378,966
Interfund transfers according to statutory requirements							
Contributions by members at retirement	(71,048)	71,048					
Interest credited to members' accounts	36,849	(36,849)					
Net interfund transfers	(34,199)	34,199					
Net increase in Net Position	70,023	217,709	3,268	5,308		296,308	398,087
Net Position Restricted for Pensions							
Beginning of year	1,034,549	3,139,081	42,956	57,537		4,274,123	3,876,036
End of year	\$ 1,104,572	\$ 3,356,790	\$ 46,224	\$ 62,845	\$ -	\$ 4,570,431	\$ 4,274,123

South Carolina Retirement Systems

Schedule of Changes in Fiduciary Net Position

GARS Pension Trust Fund
Year Ended June 30, 2018

With summarized comparative totals for the year ended June 30, 2017

(Amounts expressed in thousands)

	EMPLOYEE FUND	EMPLOYER FUND	QEBA FUND	TOTAL	2017 TOTAL
Additions					
Contributions					
Employee contributions - State	\$ 287	\$ -	\$ -	\$ 287	\$ 468
Employer contributions - State		5,426	2	5,428	4,539
Total contributions	287	5,426	2	5,715	5,007
Investment income					
Net appreciation					
in fair value of investments		2,090		2,090	3,130
Interest and dividend income		647		647	510
Investment expense		(363)		(363)	(312)
Net income from investing activities		2,374		2,374	3,328
From securities lending activities:					
Securities lending income		2		2	1
Net income from securities lending activities		2		2	1
Total net investment income		2,376		2,376	3,329
Transfers of contributions from other systems					19
Total additions	287	7,802	2	8,091	8,355
Deductions					
Refunds of contributions to members					
Transfers of contributions to other systems					
Regular retirement benefits		6,450	2	6,452	6,678
Death benefits		16		16	59
Administrative expenses		18		18	17
Total deductions		6,484	2	6,486	6,754
Interfund transfers according to statutory requirements					
Contributions by members at retirement	(271)	271			
Interest credited to members' accounts	198	(198)			
Net interfund transfers	(73)	73			
Net increase in Net Position	214	1,391		1,605	1,601
Net Position Restricted for Pensions					
Beginning of year	6,852	24,937		31,789	30,188
End of year	\$ 7,066	\$ 26,328	\$ -	\$ 33,394	\$ 31,789

South Carolina Retirement Systems

Schedule of Changes in Fiduciary Net Position

JSRS Pension Trust Fund
Year Ended June 30, 2018

With summarized comparative totals for the year ended June 30, 2017

(Amounts expressed in thousands)

	EMPLOYEE FUND	EMPLOYER FUND	QEBA FUND	TOTAL	2017 TOTAL
Additions					
Contributions					
Employee contributions - State	\$ 2,742	\$ 274	\$ -	\$ 3,016	\$ 2,928
Employer contributions - State		10,899	144	11,043	10,534
Total contributions	2,742	11,173	144	14,059	13,462
Investment income					
Net appreciation					
in fair value of investments		10,491		10,491	15,462
Interest and dividend income		3,101		3,101	2,488
Investment expense		(1,879)		(1,879)	(1,555)
Net income from investing activities		11,713		11,713	16,395
From securities lending activities:					
Securities lending income		11		11	3
Securities lending borrower rebates		(1)		(1)	1
Net income from securities lending activities		10		10	4
Total net investment income		11,723		11,723	16,399
Transfers of contributions from other systems					253
Total additions	2,742	22,896	144	25,782	30,114
Deductions					
Refunds of contributions to members					629
Regular retirement benefits		17,511	144	17,655	17,679
Death benefits		156		156	293
Depreciation		1		1	1
Administrative expenses		85		85	78
Total deductions		17,753	144	17,897	18,680
Interfund transfers according to statutory requirements					
Contributions by members at retirement	(2,149)	2,149			
Interest credited to members' accounts	963	(963)			
Net interfund transfers	(1,186)	1,186			
Net increase in Net Position	1,556	6,329		7,885	11,434
Net Position Restricted for Pensions					
Beginning of year	26,703	125,448		152,151	140,717
End of year	\$ 28,259	\$ 131,777	\$ -	\$ 160,036	\$ 152,151

South Carolina Retirement Systems

Schedule of Changes in Fiduciary Net Position

SCNG Pension Trust Fund

Year Ended June 30, 2018

With summarized comparative totals for the year ended June 30, 2017

(Amounts expressed in thousands)

	<u>2018 Total</u>	<u>2017 Total</u>
Additions		
Contributions		
State appropriated	\$ 4,814	\$ 4,591
Total contributions	<u>4,814</u>	<u>4,591</u>
Investment income		
Net appreciation		
in fair value of investments	1,669	2,384
Interest and dividend income	536	395
Investment expense	<u>(305)</u>	<u>(246)</u>
Net Income from investing activities	<u>1,900</u>	<u>2,533</u>
From securities lending activities:		
Securities lending income	<u>2</u>	<u></u>
Net income from securities lending activities	<u>2</u>	<u></u>
Total net investment income	<u>1,902</u>	<u>2,533</u>
Total additions	<u>6,716</u>	<u>7,124</u>
Deductions		
Regular retirement benefits	4,411	4,425
Administrative expenses	<u>14</u>	<u>13</u>
Total deductions	<u>4,425</u>	<u>4,438</u>
Net increase in Net Position	2,291	2,686
Net Position Restricted for Pensions		
Beginning of year	26,036	23,350
End of year	<u>\$ 28,327</u>	<u>\$ 26,036</u>

South Carolina Retirement Systems

Schedule of Administrative Expenses

Year Ended June 30, 2018

(Amounts expressed in thousands)

Personnel Services

Salaries and Wages	\$ 8,731
Employee Benefits	2,934
Total Personnel Services	11,665

Professional and Consultant Fees

Information Technology	793
Medical and Health Services	303
Financial Audit	139
Actuarial Services	382
Management Professional Services	966
Legal Services	29
Total Professional and Consultant Fees	2,612

Operating Expenses

Facilities Management	247
Building Renovations	497
Building Rent	211
Software Licenses and Programs	578
Furniture and Equipment - Expensed	222
Communications and Utilities	326
Insurance	181
Postage	152
Supplies	192
Miscellaneous Expenses	79
Total Operating Expenses	2,685

Total Administrative Expenses	\$ 16,962
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Allocation of Administrative Expenses

SCRS	\$ 14,468
PORS	2,377
GARS	18
JSRS	85
SCNG	14
Total Administrative Expenses	\$ 16,962

South Carolina Retirement Systems

Schedule of Professional and Consultant Fees¹

Year Ended June 30, 2018

(Amounts expressed in thousands)

Professional / Consultant Type	Nature of Service Provided	Amounts Paid
Bruner, Powell, Wall, & Mullins	Legal Services	\$ 11
CliftonLarsonAllen	Audit	139
Find Great People	Personnel Services	21
GRS Consulting	Actuary Services	258
Ice Miller	IRC Consulting Services	18
Linea Solutions	Operational Consulting Services	861
NWN Corporation	IT Installation Services	17
OPTIV Security	IT Security Consulting Services	59
Roper Personnel Services	Personnel Services	70
Segal Consulting	Actuarial Audit	117
SHI International	Software Implementation and Training	13
SunGard Availability Services	IT Disaster Recovery	173
Tapfin	Application Development Resources	456
USC Department of Internal Medicine	Disability Review	67
Vocational Rehabilitation	Disability Review	237
Aggregate of payees less than \$10,000 each	Professional and Consulting Services	95
Total Professional and Consultant Fees		\$ 2,612

¹A Schedule of Investment Managers and Fees can be found in the Investment Section of the CAFR.

South Carolina Retirement Systems

Schedule of Investment Fees and Expenses

Year Ended June 30, 2018

(Amounts expressed in thousands)

	SCRS	PORS	GARS	JSRS	SCNG	TOTALS ¹
Short Term	\$ 1,429	\$ 244	\$ 2	\$ 8	\$ 1	\$ 1,684
Fixed Income:						
Core Fixed Income	2,309	391	3	14	2	2,719
Mixed Credit	7,230	1,229	8	43	7	8,517
Emerging Market Debt	6,884	1,172	8	41	7	8,112
Global Public Equity	26,339	4,477	30	156	25	31,027
Equity Options Strategy	3,971	673	5	23	4	4,676
Infrastructure	2,348	399	3	14	2	2,766
Global Tactical Asset Allocation	8,943	1,528	10	53	9	10,543
Alternatives:						
Hedge Funds	76,109	13,040	87	451	73	89,760
Private Debt	41,923	7,184	48	248	40	49,443
Private Equity	78,499	13,452	89	465	76	92,581
Real Estate	38,865	6,657	44	230	38	45,834
Strategic Partnerships ²	8,610	1,476	10	51	8	10,155
Beta Overlay	966	164	1	6	1	1,138
Total Investment Manager Fees	304,425	52,086	348	1,803	293	358,955
Bank Fees and Investment Expenses ³	13,001	2,163	15	76	12	15,267
Total Investment Expenses	<u>317,426</u>	<u>54,249</u>	<u>363</u>	<u>1,879</u>	<u>305</u>	<u>374,222</u>
Securities Lending Expenses:						
Borrower Rebates	\$ 192	\$ 32	\$ -	\$ 1	\$ -	225
Total Securities Lending Expenses	<u>\$ 192</u>	<u>\$ 32</u>	<u>\$ -</u>	<u>\$ 1</u>	<u>\$ -</u>	<u>\$ 225</u>

¹ All investment manager fees, whether directly invoiced (\$54,383) or deducted from the fund on a net basis (\$304,572) are classified and reported as Investment Expense. Investment expenses include amounts for investment management fees, performance fees (including carried interest allocations), other expenses such as organizational expenses in limited partnership structures as well as offsets which may have the effect of reducing the total.

² Represents management and other fees at the Strategic Partnership level, not fees at the underlying investment level included in each applicable asset class.

³ Includes miscellaneous investment expenses, commissions on futures, bank fees and RSIC administrative expenses.

**INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER
FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED
ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE
WITH GOVERNMENT AUDITING STANDARDS**

The Honorable Henry D. McMaster, Governor
Mr. George L. Kennedy, CPA, State Auditor,
and Board of Directors
South Carolina Public Employee Benefit Authority
Columbia, South Carolina

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the South Carolina Retirement Systems (the Systems) as administered by the South Carolina Public Employee Benefit Authority, which comprise the statement of fiduciary net position as of June 30, 2018, and the related statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated October 15, 2018.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Systems' internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Systems' internal control. Accordingly, we do not express an opinion on the effectiveness of the Systems' internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

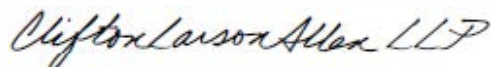
The Honorable Henry D. McMaster, Governor
Mr. George L. Kennedy, CPA, State Auditor,
and Board of Directors
South Carolina Public Employee Benefit Authority

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Systems' financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the result of that testing, and not to provide an opinion on the effectiveness of the Systems' internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Systems' internal control and compliance. Accordingly, this communication is not suitable for any other purpose.



CliftonLarsonAllen LLP

Baltimore, Maryland
October 15, 2018